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ABSTRACT

One of the aims of the Threshold Project was to examine the school-based learning experiences of children in lower primary grades in Southern African schools, particularly in relation to the changeover to English as the medium of instruction. Ethnographic observations were conducted in two Primary Education Upgrading Project (PEUP) schools and two other schools. Chapter 1 of the Threshold Project report discusses background information, the project's rationale, research methodology, and theories of culture and education. Chapter 2 compares subject-centered and child-centered instruction and describes current PEUP teaching as an indigenous mixture of the two. Chapter 3 analyzes the PEUP situation in terms of four tasks of teaching: mastery, coverage, management, and the generation of positive affect. Chapter 4 focuses on the lower primary curriculum, including the teaching of Setswana, English, and Afrikaans, and other content subjects. Weaknesses in the teaching of Tswana and English are discussed, as are the management of group work, prevailing physical conditions, and available resources. Chapter 5 focuses on teacher values, the cultural role of the child, the child in the classroom, the significance of child-rearing patterns, an indigenous theory of childhood, the role of questions in adult-child communication, and cognitive development through peer relations. Chapter 6 suggests the further development of the local teaching style and curricular changes. Finally, chapter 7 makes recommendations regarding further research and development. (AC)

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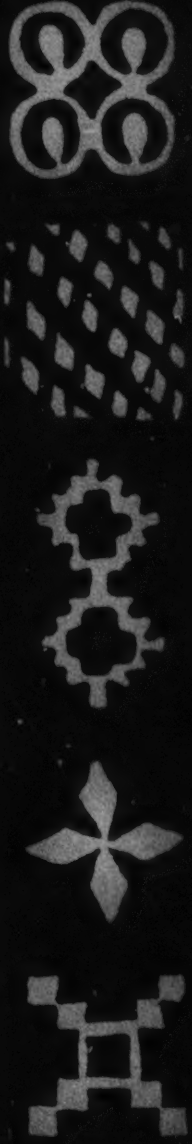

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Swimming up the waterfall: A study of school-based learning experiences

C.A. Macdonald

Human Sciences Research Council
P/Bag X41, Pretoria, 0001
1990

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Psycholinguistics
Institute for Research into Language and Arts

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The child is entitled to receive education, which shall be free and compulsory at least in the elementary stages. He shall be given an education which will promote his general culture, and enable him on the basis of equal opportunity to develop his abilities, his individual judgement, and his sense of moral and social responsibility, and to become a useful member of society.

from

THE UNITED NATIONS DECLARATION OF THE RIGHTS OF THE CHILD

(Adopted by the General Assembly on the 20th December 1959)

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I should like to thank the Bophuthatswana Department of Education for permission to work in their schools in the Moretele Circuit, and Mrs N. Lebethe who helped us with organisation in the circuit. For the ethnographic study itself, we are particularly grateful to the principal, teachers and pupils of Seroto and Lefofa schools.

I should also like to thank the Department of Education and Training, Northern Transvaal Region for permission to work in Tshimollo Primary School in Mamelodi; particular thanks to the principal, teachers and children for their hospitality and friendliness.

The fourth school in the study was St Catherine's Convent School in Florida, where Sr Austin and her staff have made me feel welcome since 1984, and once again for this study. Thanks to her teachers and pupils.

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Finally, I should like to thank Bill Holderness and Pat Irwin who reviewed this manuscript before publication. Their careful comments were gratefully received; any lack of coherence which still remains, is of course my own responsibility.

Carol Macdonald

ABSTRACT

One of the aims of the Threshold Project has been to examine the school-based learning experiences of the lower primary child, and to establish how these contribute to the difficulty of the change-over to English as the medium of instruction in Std 3. Much informal data on the area was collected from 1985-1988, and in addition, an in-depth ethnographic study was carried out July-September 1988.

As far as possible, the anthro-ethnographic approach was used wherein observations of the researchers, who for the most part were 'outsiders' were contextualised. The participants' view of reality is drawn from inferences from observations (of interaction, method, and resources) as well as interviews. A theoretical analysis of the cognitive constraints on educational change in different cultures is introduced. Observations were conducted in two Primary Education Upgrading Project (PEUP) schools, as well as an urban Department of Education and Training school, and finally a "nonracial" convent school. However, the primary focus of analysis is the PEUP system.

The situation is initially introduced in two ways. Firstly, a description of the differences between traditional subject-centred instruction and progressive child-centred instruction is delineated, and the current situation described as an indigenous mixture of the two. Secondly, the situation is analysed in terms of the four tasks of teaching, namely, mastery, coverage, management, and the generation of positive affect. The mixed teaching style has particular implications for all these tasks, as do other particular features of the learning situation.

The analysis extends to various aspects of the lower primary curriculum. The teaching of the three languages, Setswana, English and Afrikaans, is described, and reference is also made to other "content" subjects such as Religious Education, Environmental Studies, etc. Weaknesses in the teaching of Tswana and English are noted, as well as the superficiality of a core subject, Environmental Studies. A description is given of aspects of groupwork, as well as physical conditions which prevail, and the resources which are available. Some specific dynamic and material resources are posited as being essential for change.

In order to enter the situation more completely, an analysis is made of teacher values, as well as the culturally expected role of the child. This final analysis enables us to predict the extent of possible change in the system. The further development of the local teaching style is outlined, as well as desirable changes in the curriculum. Finally, reference is made to aspects for further research and development.

EKSERP

Een van die doelwitte van die Threshold-projek is om die skoolgebaseerde leerervarings van die laer primêre kind te ondersoek, en om vas te stel hoe die ervarings daartoe bydrae dat die kind die oorskakeling na Engels as die onderrigmedium in st. 3 moeilik vind. Heelwat informele data oor hierdie terrein is tussen 1985 en 1988 ingewin, en daarbenewens is 'n deeglike etnografiese studie tussen Julie en September 1988 uitgevoer.

Die antro-etnografiese benadering, waarvolgens die waarnemings van navorsers, wat grotendeels "buitestaanders" was, gekontekstualiseer is, is so ver moontlik gevolg. Die deelnemers se siening van die werklikheid is afgelei uit waarnemings (van interaksie, metodes en bronne) asook uit onderhoude. Die kognitiewe beperkinge op opvoedkundige verandering in verskillende kulture is teoreties ontleed. Waarnemings is uitgevoer in twee skole van die Primary Education Upgrading Project (PEUP) asook in 'n stedelike skool van die Departement van Onderwys en Opleiding, en laastens in 'n "nie-rassige" kloosterskool. Die ontleding is egter hoofsaaklik op die PEUP-stelsel gerig.

Die situasie word aanvanklik op twee wyses aangevoor. Eerstens word die verskille tussen tradisionele onderwerpgesentreerde onderrig en progressiewe kindgesentreerde onderrig afgebaken, en die huidige situasie word beskryf as 'n inheemse mengsel van die twee. Die situasie word tweedens in terme van die vier onderrigtake bespreek, naamlik bemeestering, dekking, bestuur, en die generering van positiewe affek. Die gemengde onderrigstyl, soos ander eiesoortige kenmerke van die leersituasie, hou besondere implikasies vir al hierdie take in.

Die ontleding word uitgebrei na verskeie aspekte van die laer primêre kurrikulum. Die onderrig in die drie tale, Setswana, Engels en Afrikaans word beskryf en daar word ook na ander "inhoudvakke" soos Godsdiensonderrig en Omgewingsleer verwys. Tekortkominge in die onderrig van Tswana en Engels word aangeteken, asook die oppervlakkigheid van 'n kernvak, Omgewingsleer. 'n Beskrywing word gegee van aspekte van groepwerk, asook van heersende fisiese toestande en die hulpbronne wat beskikbaar is. Daar word aangevoer dat sommige spesifiek dinamiese en materiële bronne noodsaaklik is vir verandering.

Ten einde die situasie indringender te deurgrond, word 'n ontleding gedoen van onderwysers se waardes, asook van die kulturele verwagtinge van die rol van die kind. Hierdie finale ontleding stel die huidige navorsers in staat om die omvang van moontlike verandering in die stelsel te voorspel. 'n Uiteensetting word gegee van die verdere ontwikkeling van die plaaslike onderwysstyl, asook van wenslike veranderings in die kurrikulum. Daar word laastens verwys na aspekte vir verdere navorsing en ontwikkeling.

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CHAPTER ONE

1.1 BACKGROUND AND RATIONALE

The superordinate problem that the Threshold Project addressed itself to is the nature of the language and learning difficulties that Std 3 children experience when they change from the mother tongue to English as a medium of instruction.

We were concerned to conceptualise our research in a way that would facilitate the design of coherent and constructive strategies for change. It was felt that this would be best achieved by focussing on five interrelated factors, viz. the linguistic difficulties experienced by the children, conceptual styles which might be culture specific, problems with content subject textbooks, disparities between English learned as a subject and English as required across the curriculum; and finally school-based learning experiences. These factors were formulated into five main objectives, which became the foci of organisation for the Threshold Project. The objectives are as follows:

1. To establish the nature and extent of the linguistic abilities of Black pupils in Std 2-3. The corresponding final report is entitled *English Language Skills Evaluation.*

2. To establish in some detail the nature and extent of pupils' cognitive capacities using a model of natural thought which has implications for curriculum design. The corresponding final report is entitled *Reasoning Skills and the Curriculum.*

3. To develop a description of the present expectations of syllabus makers and textbook writers regarding the competence in English of children in Std 3 who are beginning to learn their subjects through the medium of English, and to relate such a description to the content of two lower-primary English courses in such a way as to illuminate possible disparities between the English and content-subject courses. The corresponding final report is entitled *The Disparities between Std 2 and Std 3 demands.*

4. To establish the contribution of school-based learning experiences to the nature and extent of present abilities of children in Std 3: *the present report.*

5. To produce guidelines or principles intended to inform syllabus makers and curriculum developers. The corresponding Final Report is entitled *The Consolidated Main Report,* which also makes reference to the previous four final reports, along with another entitled *Std Three General Science Research.*

This report addresses the *fourth* aim of the project, namely, the school-based learning experiences of the child.

The Threshold Project began research in Bophuthatswana in 1986, when there was serious unrest in the Pretoria circuits of the DET that affected the security of the researchers. This means that most of the data since then is from Batswana children from the Primary Education Upgrading Project (PEUP), although we do have Setswana data from Mamelodi too. Our Sepedi data came from Soshanguve in 1985 and early 1986.

It was a happy turn of events that we had a relatively stable education system quite near us, in the Rustenburg area, and later at Hammanskraal, in which to try out our ideas. Although we knew of the good reputation of the PEUP, we did not know that we would develop so good a relationship with such an auspicious venture: here are some of the comments which prominent African educationists have made about the PEUP.

> No other country in the world has ever come as close as Bophuthatswana in providing in-service training for primary school teachers on a permanent, rolling-on basis. Bophuthatswana may well become the first.
>
> A R Thompson: Bristol

> The effect on the children is dramatic and the achievement is outstanding; this part of Bophuthatswana is a model for what should be attempted throughout Southern Africa.
>
> R Collett: Kent

Hawes' (1979) seminal work on the African primary curriculum strikes a note that is familiar to our experience. His percipient analysis of curriculum innovation has helped us to identify salient elements of the Southern African experience. In the present study it has been important for us to establish the nature and extent of the innovation, and try to determine the educational parameters that are amenable to change.

Whenever new curricula are introduced into a system, they do not simply fill an educational vacuum, they come into an interaction - where the balance may not be in their favour - with existing 'educational practices'. These educational practices may be a source of continuity and stability, but they may just as well be unacceptable educational 'conservatism'. Historical forces operate in many varied ways on policy and programmes, but particularly on the attitudes of teachers and those who train them. Hawes (ibid) has identified five factors all of which are of particular interest to us.

The first, and for our purposes the most interesting from an analytical point of view are the influences from indigenous patterns of learning. These are evident in submissive attitudes towards authority, and in the learning styles used or preferred (we will have much to say about the latter in 3.1). Oral explanations and discussion may convey a meaning and a depth lacking in written explanation. Printed text may be accepted at a rather uncritical level. There is some evidence (Gay and Cole, 1967; Horton, 1967) that the desire to find one rather than alternative answers to a problem may have its origins in patterns of indigenous education. (In this last instance there are repercussions on the teaching of science and the facilitation of creativity.)

The second source of historical influences are from Islam and Christianity and the missions. Over a long period of the history of formal education the great majority of schools were missionary schools. There must be some influence from catechist classes on the style of learning (i.e. by rote), and the mission schools did diminish the value of the traditional arts of music and dance. Also early missionary education would have been teacher-centred and authoritarian, since this was the universal mode of education in Europe and the United States until the early part of the 20th century.

The third source of influence comes from patterns of colonial education. The one which we recognise here, and which continues today comes from the original demand (enthusiastically supported by teachers and parents) for an education which would produce a competent and reasonably docile junior civil servant, a clerk, a store-keeper, or interpreter. The modern equivalent of this is tne stream of matriculants with F averages who go on to become teachers or minor civil servants, unable on the one hand to meet the challenges of living in a Third World environment, where practical skills are paramount for survival, and unable on the other hand to meet the demands of the information age, with its emphasis on mathematics and computer science. They become discontented citizens of some grey Fourth World, where biology and business economics are not of much consequence. It could be said that we have been producing pupils who are capable only of going back into education to perpetuate the cycle of producing people poorly equipped to meet the demands of a rapidly changing society.

The fourth source of influence Hawes calls "borrowing from Britain", where we could interpret this as borrowing from whatever liberal, progressive (glossy) textbook that comes to hand at the teacher's training college. We have in mind a pertinent story: when discussing the use of the enquiry method in black education during a teacher-training session, we were told by a senior teacher that when she was at college they were told about this method, whereas the present generation now have it demonstrated to them at the front of the class. Preservice teachers therefore don't actually ever experience the method fully, and yet they are expected to use it. Little wonder that they think that "apparatus" is the crux of the progressive approach to education.

The fifth and final influence that operates on teachers is what Hawes p.26 calls "survival teaching":

> A final set of influences come from that oral tradition. ... it (is) handed down by one hard-pressed disillusioned teacher to another in the face of long hours, poor conditions and low recognition. These traditions, and they are very strong, all contribute towards maintaining authority, reducing pressures, saving time, achieving passable examination results. They lead to a formal didactic, teacher-centred approach, they operate with devastating force upon teachers newly trained in 'activity methods', but in the tough, bleak conditions which obtain in some schools they may well represent the only possible alternative for a struggling teacher to adopt.

As with all curriculum development, work in the African context has assumed optimal classroom facilities and pupil competence: a six year old entry level, homogeneity of age and culture, equal numbers of girls and boys, classes of average size (i.e. 30-45), regular attendance, children repeating classes seldom, and completing their primary course. And of course usually not one of these assumptions obtains. The same disillusionment that the politicians suffered on the political front has been shared by the post-colonial educationists. Hawes talks of the disappointment suffered by the curriculum developers (p.2):

> The curriculum is neither as appropriate nor as efficient as we had hoped and gaps between plans and realities are very, very great. The processes of selection from the culture and transmission of such a selection to the learners now stand revealed as progressively more complex and complicated and our attempts to prescribe solutions as naive in both method and assumptions. Hence our disappointment.

The mismatch between the curriculum and reality is likely to exist in any situation: however, our task is to learn from past mistakes and to make recommendations for improving the match between what is ideal and what is feasible and viable in our own situation.

What is the ideal curriculum that the PEUP has aimed for? There is an interesting distinction made in a recent report (Holderness, 1986) between the "Aims" of the project (see Table 1.1 below) and its "total approach" (see Table 1.2 below).

1. To change the classroom into a stimulating rich environment for children;
2. to divide children into ability groups in order that each child should be able to learn at his own pace, to become an active learner and to participate in the learning process;
3. to give each child an opportunity of learning from his own experience and of expressing himself, becoming creative and of realising his full potential as a problem solver;
4. to help the child master new concepts and to explore these concepts fully;
5. to make learning a joyful and positive experience and to reduce harrassment and confusion at this early stage of life and learning;
6. to help children build a good self-image, to be independent, self-reliant and to learn to share and be considerate towards others;
7. to plan the time-table in such a way that learning be more child-centred and so as to provide a well-balanced personality.

Table 1.1: *Summary of the PEUP aims*

The PEUP aims are broadly child-centred or progressive in their conception. The material conditions for learning are to be improved, and the child's natural potential for social and intellectual development nurtured. The child's particular level of ability is to be catered for in differentiated group teaching. In Chapter Two of this report, we attempt an independent description of the particular nature of child-centredness which obtains in the classroom.

There is the widely claimed success of the PEUP which we must account for, and we have the strong feeling that this lies principally in its systemic effect, not confined to the psychological upliftment of all these small pupils. This is where the "total approach" comes in. In Table 1.2 below are extracted aspects of the total approach (Holderness, ibid, p.1) which complement the aims presented in Table 1.1.

1. Motivate schools to overcome shortages in classroom accommodation;
2. increase community involvement in the upgrading process;
3. introduce, and where necesssary produce more, appropriate learning materials;
4. provide "hands on" coaching in the use of new materials and methods;
5. organise follow-up classroom visits to monitor progress in the schools.

Table 1.2 *The Total Approach (apart from the aims)*

In the early years of the project, classes had to be limited to 50 pupils, otherwise they could not be be part of the project. This motivated the schools to provide the children with more accommodation, where previously some classes had as many as 100 pupils. It has often been posited that activity-based learning (children working on tasks in groups) is unlikely to thrive in overcrowded conditions.

The community involvement in the exercise came from the early estimate that apart from the purchase of furniture (where the Department of Education contributed on a rand for rand basis) that it cost about R2 000 to upgrade a classroom. This money the community had to donate or raise, and they became interested in the progress of classes that they themselves had upgraded. It is a matter for speculation whether such a strategy would work in the Republic, because the policy of free state education is antithetical in many people's minds to community support for physical materials.

Because of the perceived importance of English, the PEUP chose the two schemes that were thought would help the teachers to teach English best. These are are Macmillan's Primary English Project (MAPEP) and Maskew Miller Longman's New Day-by-Day course, both a far cry from the traditional grammar books which are so pervasive elsewhere. Teachers also produce activity cards in different subjects, including language and mathematics from waste cardboard they have gotten from industry. These are learning resources which are recycled from year to year. The most positive benefits of producing one's own materials is that the teacher has to know and understand what it is she is trying to teach, to understand the basis for her own questions (cf. however, the discussion of difficulties in 2.3 below).

In-service training has principally been provided by intensive one-week courses, in which an attempt is made to cover all subjects in the curriculum at any given level. These one-week courses are chiefly held at schools, and include, wherever possible, participant observation of recommended teaching practice in model school classrooms and "hands-on" coaching in the new methods for principals and teachers alike. The "hands-on" coaching approach has proved to be particularly effective

(Holderness, ibid), probably because teachers are given in-context experience with immediate feedback.

The coaching aspect goes in tandem with follow-up classroom visits to monitor teachers' progress. Each circuit has a circuit team comprising identified principals and teachers, along with the organiser for the circuit. These teams shoulder the responsibility for the in-service courses in the circuit, and for duplicating and distributing course handouts that have been generated centrally by the PEUP team.

The decentralised model of in-service training works not only in the Third World context: it is also the most workable model for teachers in Britain (Ashton et al, 1983) and the reason is clear. Teachers learn best when they see the applicability of new methods to their own situation, have a chance to practise them and get appropriate feedback. These are principles which worked on two projects which the author evaluated (The Std 5 Science Project in the Johannesburg Region (C.A Macdonald, 1984 and 1985a) and the Computer Assisted Arithmetic Research Project in Soweto (C.A. Macdonald, 1987 and 1985b); and where they were not used, in-service training failed to meet its stated objectives (Science Education Centre, Soweto, C.A. Macdonald, 1983).

The rationale for the present study lay in *assessing the efficacy of the PEUP innovation in the classroom for preparing children for Std 3.* This assessment is taken, in this study, to be broadly based, since the process of education has numerous facets which interact in different ways to produce specific effects. We have in mind here the following facets: the teaching style, how the teacher approaches her central tasks of management, coverage, mastery, and the generation of positive affect, the material conditions, the teacher's values, and the cultural role of the child.

1.2 PARADIGM AND METHOD

In looking at the curriculum, we are looking at the *meaning* that teachers and pupils create in their actions and activities. For this reason, we assume a hermeneutic viewpoint and take Vygotsky and Piaget as our particular theoretic instantiation (although this theory is not explicitly developed in the body of the report; see 1.3 below). In this section I shall be concerned to give a theoretical overview of the hermeneutic paradigm as well as a review of the ethnographic approach, giving brief indications of their application to our problem situation only in brief.

In the social sciences, data are not detachable from theory. What counts as data are determined in the light of theoretical interpretation. For example, the relationship between caretaker and child is of critical interest from a Vygotskian point of view, and would therefore constitute a valid object of study. By the same token, all descriptions and observations are theory-impregnated (in other words we use the language of Vygotsky for describing what we see in everyday interactions.)

Meanings are not separate from the facts, because meanings are what *constitute* facts. Data consist of intentional behaviour, social rules, and other human artefacts. Each of these three kinds of data are inseparable from what they mean to the agents concerned.

In the end we have what is called the *hermeneutical circle,* in which the logic of interpretation is irreducibly circular, in at least two ways. Firstly, the part cannot be understood without the whole, while the whole depends on the relations of the parts. Secondly, data and concepts cannot be understood without theory and context, and theory and context depend on the perceived relations between data and concepts (as we have exemplified above in relation to Vygotsky).

Geertz (1973) (p.227) introduces two interesting notions in his analysis of how it is possible to discover how people think. He differentiates between *experience-near* concepts and *experience-far* concepts. An experience-near concept is what a person from a culture might "naturally and effortlessly use to define what he or his fellows see, feel, think, imagine and so on". An experience-far concept would perhaps not be definable at all. An example of an experience-far concept is the concept of personhood. For example, in Java, Bali and Morocco people do not use this concept and there is no generic concept of self with clearly defined criteria. When using experience-distant concepts we are enabled to understand their distinctive symbolic forms, by indirect means such as allusions, jokes and puns etc.

In our educational context, it is important to establish what experience-distant concepts play a role: for example, we suspect that the notion of motivating the child's intrinsic drive towards mastery is foreign to the teachers, yet we as researchers find the notion productive in explaining children's behaviour. However, there is a dialectical interplay between the two kinds of concepts - one cannot sharply distinguish between reflective and nonreflective understanding. Geertz (op. cit. p.19) says:

> What prevents us from grasping what people are up to is not ignorance about how cognition works (but) a lack of familiarity with the imaginative universe within which their acts are signs.

In the *ethnographic* method, the researchers attempt to enter as best they can into imaginative universe constituting the black primary education system. The anthro-educational method as described by Spindler (1982) is subscribed to. The principal aspects of this method are laid out below, with references to the particular instantiations in our situation.

a. Observations are contextualised. The significance of events is seen in the framework of relationships of the immediate setting being studied, but is pursued, as necessary, into contexts beyond.

   Our observations included schools in three different situations: the first two - PEUP - schools were a high-achieving and a village school; the third was a DET urban school, and the fourth, an academically-oriented "nonracial" convent on the Witwatersrand. The significance of the modes of action were most clearly highlighted in such contrasting contexts.

b. Hypotheses and questions for study emerge as the study proceeds in the setting selected for observation.

The questions for the present study emerged through three years of different research experience on the same general problem area. Furthermore, the present study raised many questions for further research and development.

c. The native view of reality is brought out by inferences from observation and by various forms of ethnographic inquiry: inter alia, interviews and other eliciting procedures (including some observational and testing instruments).

Our data included earlier data from a classroom observation schedule (the COST matrix - cf. our project's Std Three General Science Research final report), classroom observation, and interviews and discussions with teachers, principals and pupils.

d. Since the informants have the emic, native cultural knowledge, the ethnographic interview must not predetermine the kinds of questions asked. The emic knowledge must unfold in its most heuristic, "natural" form.

In this respect, our data did not always unfold in the most natural way, since, apart from trying to explore "how-things-are-done", we also wanted teachers to give us judgements on explicit aspects of the PEUP innovation. However, the explicit judgements were carefully weighed against the teacher's own preferred praxis.

e. Observation is prolonged and repetitive. Chains of events are observed more than once.

We observed teachers from Grade 1 to Std 3 in four schools, and each teacher was observed for a whole school day. In the case of Std 3, we saw several teachers, teaching different subjects. Hence we were able to trace in a cross-sectional manner, the progress made by children of specific teachers, as well the development of the teaching of various subjects.

f. Inquiry and observation must disturb as little as possible the process of interaction and communication in the setting being studied.

The two researchers on this project tried to be as unobtrusive as possible, sitting at the back of the classroom, and introducing no intrusive technology. As the day progressed we might circulate quietly, to see how children were managing in groups, and some photographs were taken at significant points. Occasionally the smaller children pressed us into service as teacher-aides!

g. There are different forms of information that count as data.

For us, there were the observations, the discussions, the interviews, and to this we added actual samples of children's work, as evidence of development through the year, as well as current performance. The reader will find many of our observations illustrated through the use of photographs in the report, as well as samples of children's work contained in the Addendum.

h. Sociocultural knowledge held by social participants makes social behaviour and communication meaningful to oneself and to others.

In this study we were lucky to have both an English-speaker and a Setswana-speaker as researchers, and the latter researcher acted as a cultural interpreter for acts whose motives were opaque to the other researcher; many of the incidents were discussed in detail at the end of each day.

i. However, some of the sociocultural knowledge affecting behaviour and communication in any participant setting being studied is implicit or tacit, not known to some participants, and known only ambiguously to others. A significant task of ethnography is to make explicit the tacit knowledge.

This task is a tremendous challenge in research, and absolutely critical, insofar as some of the tacit knowledge underpins actions that may have significant repercussions in the teaching situation. One example here is what might be considered as adequate or satisfactory performance on tasks; another is, what might be considered as adequate evidence of deep enliteration? For the second question, we have to take information where we can get it. For example, one of the directors of education said scathingly in a meeting that the former co-ordinator of PEUP expected the child to read more than one book a year! In a deeply literate environment, children may unselfconsciously read a book every week, or perhaps more. On another occasion, a Motswana English adviser shook his head in disbelief that there is virtually no children's literature in Setswana.

To draw the threads together in this section, we have worked within a hermeneutic paradigm, which sees the inextricable relationship of theory to data, and data to theory. The particular method which was used in the study was ethnographic, which uses a variety of methods to try to understand the situation from the participant's point of view, and to make explicit the values which serve to structure the learning environment.

The researchers in this study (narrowly defined) were a South African born English-speaking researcher, and a Bophuthatswanan Setswana-speaking research assistant. However, other insights collected over the course of five years included work with Siswati- Venda- and Sepedi-speaking research assistants, as well as with other English- and Afrikaans-speaking researchers amongst our colleagues.

The schools that were visited in the course of the main study were a rural and urban school in the Moretele Circuit at Hammanskraal, a township school in the Pretoria East Circuit, and a nonracial convent in Roodepoort which has white, coloured, indian, chinese and black pupils (girls only). We spent a whole school day observing a teacher from each of the classes from Grade 1 to Std 3, after which we interviewed her (or him). We observed 20 classes *per se* but more teachers, where there was subject teaching. The latter occurs from Std 1 in the Department of Education and Std 3 in the Bophuthatswana Department of Education. In the convent school, the same teacher teaches the full range of subjects, apart from the so-called "extra-mural" subjects such as music and art: here specialist teachers are employed.

We also spent time informally with the school staff, and interviewed the principals too. We found that we often gleaned as much information from informal chats as from more formal interviews. At the end of each day the researcher and her assistant "debriefed" - comparing notes about their interpretations of what they had seen. The research assistant served as a "cultural guide" on aspects of the interaction that continued to puzzle the researcher, for example, patterns of authority and discipline.

Other experience which was brought to bear on our interpretations included research experience in Soweto, Soshanguve, Tlhabane, Venda, and Pretoria. Hence, if restrictions were to be placed on the generalisations and insights contained in this report, they would most likely refer to the predominantly Nguni-speaking areas of South Africa.

At this point the reader may proceed to Chapter Two, for a description of the particular teaching style observed in the PEUP. The more theory-minded reader can take the plunge into more complex theoretical waters, to swim around the perimeter of cognitive theories of educational change.

1.3 CULTURE AND EDUCATION: A THEORETICAL APPROACH(1)

In this section the relationship of culture and education is explored in a technical discussion. It should be borne in mind what the rationale for this analysis is:

1. An account of the relationship between culture and knowledge help us to interpret the significance of the symbolic interaction we observed.
2. Such an account addresses variables such as values, beliefs and role conceptions that would be negotiable within specific parameters.
3. An integrative account of the black primary education "system" can provide the basis for determining the possible capacities and direction for change. In section 5.3 below we attempt a statement about the possibilities for change.

People in Southern Africa are increasingly being faced by socio-political moves for change; the situation challenges individual and group abilities to adapt to changing circumstances. Within this process of change lie opportunities for preserving or destroying past material circumstances, institutions and the knowledge or ideational network surrounding human praxis (i.e. conscious, goal-directed, intentional action).

The debates about deliberate attempts at transformation usually focus on the social or institutional level of analysis and they typically demand

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(1.) Most of the theoretical points made here are directly derived from Craig's exegesis of development and change, published in various documents (1985, 1986, 1987, 1988). If there are any misinterpretations in the integrated presentation, the present author takes full responsibility.

some form of *political* action. While one does not want to negate the institutional level of analysis for change, an important aspect which has been commonly ignored is the cognitive constraints which are associated with change. We need to analyse these cognitive constraints to give us an adequate conceptual basis for societal transformation.

From a psychological point of view, we need a conception of the "knowing subject" at the cognitive level of analysis. The distinction between the knowing subject and society can be seen as one of degree only: there is no marked division between the psyche and ideology. To explain, the psyche is an active, purpose-seeking instrument of praxis, consituted by historically and culturally rooted social forms, communication and symbols. This conception has been developed in Craig (1985), from a coordination between the Vygotskian and Piagetian paradigms. The Piagetian distinctions between consciousness and behaviour stands in the same relation as societal symbolism and superstructure. The conscious, goal-directed praxis of people creates both consciousness and the superstructure.

Piaget (1977) developed the notion of 'equilibration' as the explanatory construct for the development of knowledge. The concept of 'no-balance' is central to his model; this indicates a conflict between what the subject can do and does know during the interaction with an object of knowledge (these being people, ideas, events, things, etc.) and what the object demands in terms of historical constitution.

In our context, the important points are, firstly, how a non-balance may arise in a system of knowledge, and, secondly, what may serve as resources for surmounting the conflict. We will return below to the situation we in South Africa have created for ourselves, where teachers fail to have or to develop the resources to surmount the conflict.

Vygotsky's (1978) analysis of cognitive constraints, which places these in the particular context of actual social relations, takes us further. He focuses on an analysis of how the non-balance arises, and locates it in a mediator, or cultural guide. So, Vygotsky's analysis specifically addresses the social actor (=knowing subject), his material conditions of existence, the social communication between people, and the social processes underlying cognitive development. Cognitive constraints will result from particular relations between people in society.

In this paradigm, the origins of self-regulatory activities (including higher order thinking skills) lies in culturally prescribed patterns of control. These patterns are exercised at first by a mediator, and later the child internalises these outer-directed cognitive controls. At a societal level, the same happens when an adapting system (e.g. black education) enters an unfamiliar reality i.e. one that is the product of another socio-political development trajectory (e.g. white education). The adapting system may internalise through social transaction the regulation exercised by the mediation agents of the adapted system. In this contact the modes of regulation may change one or both of the systems.

However, in our society, fundamental social transaction is limited and even prohibited, so occasions for adaptation are absent or heavily restricted. As a result, each system is left opaque and only superficially approached by the other. What is left opaque are the hidden meanings of the taken-for-granted practices, beliefs, and so forth, of each system.

In the act of transforming situations, people will need firstly, explicit *opportunities* to exercise their natural power to change and be changed; secondly, they will need to be empowered by the generative power of *transaction;* finally, they will need agents who will serve the *mediating function between realities*. The social guide or mediator, who is the interface between the social and the psychological, must create the *conditions for cognitive conflict,* and the *resources for surmounting it.*

The preceding summary statement would need to be unpacked in our particular context i.e. black primary education. The black child within the framework of 'blacks in South Africa' may belong to a (constructed) reality which differs from the reality in which formal western schooling is embedded.

One might find the original reasons for culturally autogenous(2) activities like carrying babies on the back to shield them from the potential harm of the open fire, or to facilitate constant feeding. However, later, activities lose their original significance and become 'the way things are done'. As Vygotsky points out, outward appearances conceal the internal nature or processes that silently underpin social activity. In formal western schooling, much of what goes on might simply be 'the way things are done' (although the way things are done lead to, other, unanticipated cognitive benefits). For the non-western mother and teacher, the child's entry into the social forms underlying formal western schooling is complicated by the fact that meanings are obscured, and reasons for doing things a particular way are unintelligible. Culturally more consonant forms may replace the opaque forms: for example, a black child may do the same thing as a white child, but for a different reason, and perhaps with very different consequences.

Social actors are mostly unaware of the underlying structure or meaning of everyday tasks. The ability to move freely, to communicate needs, to be self-sufficient, to uphold authority relations, to preserve and use social knowledge, etc, carry with them a host of opportunities for learning the skills required in that society. With change, traditional tasks (such as animal husbandry, weaving, etc.) may be displaced. The real loss here is not the tasks themselves, but rather *the opportunities for learning* which these tasks embody. New goals may ensure that conventional patterns of behaviour become devalued, inappropriate or even impossible. The culture is in the process of making a paradigm shift; and in the grey land between paradigms, there may be a loss of cognitive efficacy as a result of the loss of opportunities for learning on the one hand, and the opaqueness of the tasks offered by the new paradigm on the other.

Mothers' or teachers' expressed beliefs about appropriate behaviour (for example, not looking an adult in the eye) may not be realised in action with the same force as they are expressed. But these beliefs are nevertheless an important data base from which to contruct an analysis of the conditions for change. It may be the case for example, that authoritarian-submissive beliefs and practices are actually antagonistic

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(2.) The concept of "culturally autogenous activity" conveys the idea that there is a distinct or unique development of certain activities that emerge as part of the historical development of a group in society.

to, for example, teaching children to seek independently for information.

Research on Zulu mothers (Craig, 1985) showed that they viewed *teaching* in context-embedded terms, such as example and demonstration, and *learning* in similarly embedded terms as observation and imitation (cf. Chapter Five for fuller discussion). But schooling diminishes the possibilities for in-context learning to which Cole & Scribner (1974) and Bruner (1973) refer. If individual parents do not invent new ways to raise their children, nor invent new competencies to transmit to their children (Ogbu, 1981), then we have to look to the school as a mediating agency between the known and the new realities. As we will see in our discussion later, teachers respond to the expressed values of parents and are not therefore autonomous agencies (nor should we expect them to be, insofar as they are parents, too!)

The mediator has an important role in determining the course of development. One the one hand, the child brings to the situation his potential, and the power of equilibration (an intrinsic generative mechanism) to resolve unfamiliarity. The mediator brings to the situation interpsychological functioning, which refers to adaptation or learning through transaction (that is, it is an extrinsic generative mechanism). The mediator (or teacher) will naturally use what she knows about the world and the task at hand. This provides the impetus behind socialising children into familiar social forms or tasks. In the 'newer' reality or formal schooling, tasks too will bring their own demands, on teachers and children (and parents) alike.

These demands may function as mediators insofar as they present the teacher and the child with the occasion for resolving the non-balances which may arise. However, *in the absence of resources to surmount the conflict,* adaptation, or genuine learning, will not occur. So, it is not sufficient to present children with task demands which create non-balance; the teachers must have the resources to resolve these.

In summary then, within a learning/teaching situation a succesful transaction between the subject and the object of knowledge may only be possible if the following conditions are met (Craig, 1987, p.60):

A. The creation of an experience of conflict in the subject between existing knowledge, and the knowledge that the unfamiliar object demands.
B. The opportunity to intentionally pursue a resolution of the conflict or non-balance.
C. The provision of resources to surmount the conflict and to reach a higher state of equilibrium in the knowledge system.

If we look at these conditions in relation to learning English, condition A would require the cognitive capabilities which must be assumed in the child in his encounter with English, the unfamiliar object. The place of the mother-tongue, the experience of the child, and his lived-in-world all have bearing. Similarly, we would need an account of what the teacher brings to bear on the task.

Condition B would entail the kinds of teaching methods where subjects are required to execute tasks under English instructions and where success depends on the child's resolving unfamiliar demands. This condition militates against repetition and action exercises, although these have a place in assimilative learning.

For condition C, the way in which the task is talked about must carry the burden of allowing for adaptation to unfamiliar forms. Our current data indicates that teachers may bring inadequate resources to the situation. The mere description of these inadequacies will not serve to remedy the situation. Even more self-defeating is the attempt to design "teacher-proof" materials. Such materials do not create an interface between the realities(3), but may only serve to nullify those abilities, skills, experience and knowledge that the teachers already have.

The reader who is interested in cognitive matters related to the curriculum, will find the above account - substantially expanded - in Chapter Two of the Reasoning Skills Final Report.

(3.) When we designed our "transitional model" for science learning, we tried to take into account the perceived competences of the teachers and their preferred interaction styles.

CHAPTER TWO

TEACHING STYLE

2.1 THEORETICAL INTRODUCTION: TRADITIONAL SUBJECT-CENTREDNESS VERSUS PROGRESSIVE CHILD-CENTREDNESS.

> The critical task of educational researchers interested in teaching and learning has therefore been to develop models or theories which allow a meaningful ordering of research findings in order to ascertain necessary frameworks for understanding and explaining classroom processes and their outcomes. This understanding can then provide the basis for the continuing improvement of teaching.
>
> (Bennett, 1987, p. 46)

In the last two decades, research on *teaching styles* has taken the path of discriminating between two theoretically distinct aggregates of teaching behaviours, and trying to relate these to patterns of pupil achievement. The two teaching styles are usually termed "progressive" and "traditional" styles. The teacher activities and behaviours on which these categorisations are based are broad features of classroom and curriculum organisation, such as the type of pupil groupings, extent of testing, modes of motivation and the degree to which subject matter is compartmentalised or integrated. The prescriptive theory of "progressive" teaching developed by Froebel and Dewey was taken up in the Plowden Report (1967), which in turn heavily influenced subsequent research. The characteristics which distinguish each style are shown below in Table 2.1 (Bennet, ibid, p. 48).

The characterisation of these styles was developed in Western educational theory at the turn of the century. Since not much attention was paid at that time to patterns of indigenous teaching, and since cross-cultural psychology has only recently shown such an interest, this is not represented in the typical characterisation. So for example, there is no explicit place for field-sensitive, context-embedded learning. The inexorable imperialism of western education has led to the inevitable propagation of progressive philosophies in many a non-western teacher training college. Little thought has been given to the adaptations that a local system has to make to accommodate such a style. Indeed, as we shall see later, the local system may make a unique adaptation to maintain maximum congruence with its own existing forms (cf. Chapters 3, 4 & 5).

As was indicated above, part of the interest in teaching styles was to ascertain the cognitive concomitants or consequences of using particular styles. Modern conceptions of knowledge have been used to support progressive notions, for example Piaget's theory of genetic epistemology. However, we can go back to Dewey to find an illuminating account of the dialectic between the immaturity of the child, and the accumulated knowledge of society as embodied by the adult, and how the dialectic can turn towards either traditional or progressive forms in the educational process.

Table 2.1: *Characteristics of Progressive and Traditional Teachers* (From Bennett, 1987, p.46).

Progressive	Traditional
1 Integrated subject matter	1 Separate subject matter
2 Teacher as guide to educational experiences	2 Teacher as distributor of knowledge
3 Active pupil role	3 Passive pupil role
4 Pupils participate in curriculum planning	4 Pupils have no say in curriculum planning
5 Learning predominantly by discovery techniques	5 Accent on memory, practice and rote
6 External rewards and punishments not necessary i.e. intrinsic motivation	6 External rewards used, for example, grades, i.e. extrinsic motivation
7 Teachers give as high priority to social and emotional development as to academic attainment	7 Teachers give highest priority to academic attainment
8 Little testing	8 Regular testing
9 Accent on cooperative group work	9 Accent on competition
10 Teaching not confined to classroom base	10 Teaching confined to classroom base
11 Accent on creative expression	11 Little emphasis on creative expression

Dewey (1902, edited material, 1966) has spoken out against false dichotomies such as subject matter/self-realisation, and discipline/interest. The child's present experience and the stored experience of the past are the 'initial and final terms of one reality'. The fundamental forces in the educative process are an immature, undeveloped being, and certain social aims, meanings and values embodied in the matured experiences of the adult. Education lies in the dialectic of these forces.

However the dialectic becomes a duality when the subject matter is logically arranged, classified and graded for presentation. In the psychology of the child, the same material is experienced rather differently than predicted. The duality leads to the dead, mechanical and formal in school, when the life and experience of the child is subordinated to the curriculum. Dewey (p.129) would see instruction defined as the line between the present standpoint of the child and the facts and truths of disciplines or studies. "It is continuous reconstruction, moving from the child's present experience out into that represented by the organised bodies of truth that we call studies".

This continuous reconstruction does not mean the child must "rediscover" the universe for himself; rather he is enabled to develop powers and interests that will be of value to him(1). The teacher would be concerned with discovering ways in which the subject may become part of the child's experience. Dewey calls this "the psychologising" of the subject matter.

The logically arranged, classified and graded subject materials referred to above, lead, according to Dewey, to three difficulties. Firstly, lack of organic connection with the child makes the material purely formal, a "dead weight to burden the mind ". Secondly, there is likely to be a lack of intrinsic motivation, which would otherwise convince the child of the usefulness of a new skill in tackling an experienced problem. Thirdly, the actual recapitulation of the development of knowledge is excised, leaving the child with a residue of simplified facts to learn.

There are some commonly used ways to supply extrinsic motivation to such subject materials. The mind normally seeks satisfaction in its own exercise, but if all that is provided is formal exercise, it will eventually content itself with that. The obverse of interest is the avoidance of fear, and the child will try to bring his wandering mind back to his lesson if the only alternative is ridicule or punishment. Even if an attempt is made to make the material "interesting", Dewey would claim that it has not been apprehended, "nor worked into the faculty."

It would seem that Dewey implies that the exercise of traditional teaching would lead the child not to fulfill his cognitive potential. And there have been many Western scholars who have echoed this sentiment. Memory skills are said to develop at the expense of logical skills and creative thinking (cf. the Laboratory of Comparative Human Cognition, 1986) although little evidence has been adduced for this. Nevertheless, even if cognitive benefits were not the monopoly of experiential learning, social and emotional benefits are purported to accrue from the use of this method.

Although much intellectual heat has been spent in exhorting teachers to more progressive ways, there is much evidence that the traditional style is active and well in many Western classrooms (Hoetker & Ahlbrand, 1969). And where changes have been made, fundamental learning activities may have altered only superficially. Although the child may be physically seated in a group, he is likely to be engaged in a learning task similar to those his parents engaged in (Galton, 1987). Such are the constraints in developing and managing a learner-centred environment, that many an enthusiastic teacher heart has been daunted. It has been cogently argued by Westbury (1973) that a "technology" needs to be developed which will facilitate the child's partially self-managed, guided discovery. To date, only mathematics has met the challenge with the "technology" of the Dienes blocks and the Cuisennaire rods, according to Westbury (ibid).

(1.) cf. the notion of guided discovery which was discussed in the Std 3 General Science Final Report.

2.2 LEARNING AS CONSTRUCTING MEANING

There is still much polemic over the purported distinction between teacher-centred *rote* learning and child-centred *discovery* learning. In our writing on science education we noted the useful distinction that had been made between discovery and guided discovery learning, where the latter is seen as the only feasible way to cover a broad range of concepts and process skills.

But a nagging sense of doubt remains about the inadequacy of so-called rote learning. For one thing, the teachers at the convent school where we did part of our research teach "from the front", instruct their children explicitly, and their children attain high levels of competency. For another, the teachers in the PEUP schools give their children very orthodox occupational and classwork tasks, and yet their children could be said to be thriving. It seems some finer distinctions need to be built into the conceptions of learning.

Just such a fine-grained distinction has been made by an educational psychologist, Ausubel (1985), who starts with the assumption that an acceptable academic objective would be the acquisition of valid and usable bodies of knowledge and intellectual skills and the development of the ability to think critically, systematically and independently.

He goes on to make two process distinctions -

a. reception versus discovery learning, and
b. rote versus meaningful learning.

Hence one could come with different kinds of learning, e.g. rote reception learning (which would seem to be the same as the Rote Rhythm method that we identified in our Threshold Project Interim Report (1988)), or meaningful discovery learning. These would be the poles that are popularly distinguished. However, Ausubel goes on to discuss what he sees as the principal instrument of educational learning, and that is *meaningful reception* learning. The important point here is that verbal reception learning is not necessarily rote in character.

Reception learning will take on a rote character if the following conditions obtain:

a. the learning task consists of purely arbitrary associations;
b. the learner lacks the relevant prior knowledge necessary for making the learning task potentially meaningful, and
c. the learner adopts a set merely to internalise it in an arbitrary, verbatim fashion.

The second and third conditions may well obtain in the situation that we have researched, with children learning foreign concepts through a foreign tongue. In contrast, meaningful learning takes place if the learning task can be related in a non-arbitrary, substantive (non-verbatim) fashion to what the learner already knows, and the learner adopts the learning to do so.

In rote (reception) learning, a simple and non-substantive linkage occurs with existing cognitive structures. In meaningful (reception) learning, the processes of acquiring information results in a modification of both the newly acquired information, and the specifically relevant aspects of cognitive structure to which the new information is linked.

The extent to which meaningful receptive learning is active depends in part on one's need for *integrative* meaning and on the vigour of one's *self-critical faculty*. The notion of integrative meaning involves the integration of ideas with current knowledge, and self-critical faculty refers to the integration of ideas by reformulation into terminology consonant with what is already there. (These distinctions are taken further in the final report on Reasoning Skills.)

The risk in meaningful learning does not principally reside in the falling back on rote strategies, but rather that the learner may think that he has grasped genuine meanings, but instead may have vague and confused sets of empty verbalisms. Clearly the task of the teacher would be to test the comprehension of the pupils in a way that gets to genuine meanings, and to obviate any unwillingness to put active effort into reformulations. Getting to genuine meanings would be more difficult if the child has insuffient structure in the second language to scaffold concepts.

The distinctions that Ausubel (ibid) develops are very useful to get a balanced view of what has been achieved. Unlike Dewey, he sees the child as being able to construct meaning on material that has be previously designed; rather, he takes account of the developmental level of the child along with other factors such as the central unifying ideas of disciplines, precise definitions, and active reformulations. He points the way to specific skills that the teachers should possess, such as being able to use socratic questions, reconcile contradictions, and encourage a critical attitude towards knowledge. These requirements will be discussed again in Chapter 6 below.

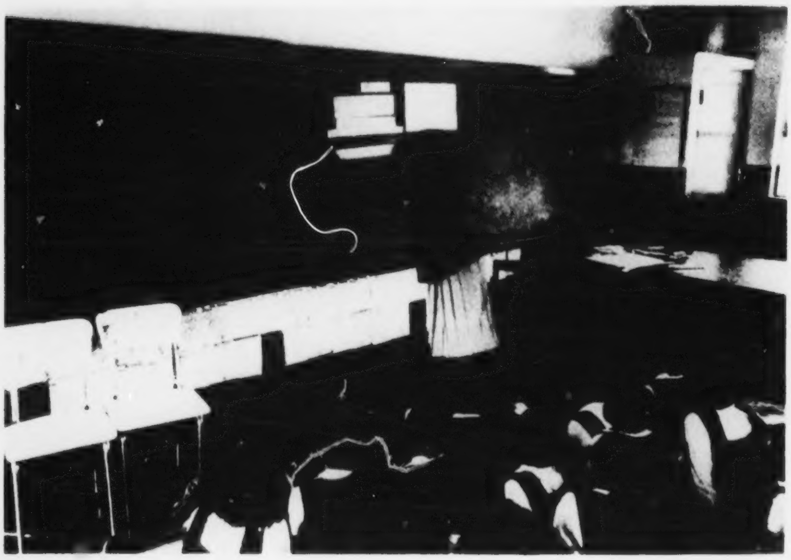
The present research is on one level an explicit attempt to address streotypes, and reveal the subtleties of motivation, attitude and praxis that underlie education in different situations. One approach to this was to describe the teaching style characteristic of the PEUP.

2.3 A MIXED APPROACH OBSERVED

Although the official policy of the PEUP is that it holds to a child-centred philosophy, this philosophy has been introduced into a context with its own characteristic values, beliefs and norms, and hence it has taken on those aspects which are consonant with its own. Other aspects which are dissonant, have met with apparent resistance, and perhaps been adapted. In order to facilitate the description, reference is made to Bennett's (ibid) specific characteristics outlined in Table 2.1 above, and dealt with in the same order. Many of the points are taken up in detailed discussion in Chapter 3 and later.

1. The nature of the subject matter
   Category: TRADITIONAL

Since the curriculum is still centrally controlled, teachers still teach subjects separately, and only Environmental Studies (Grade 1 to Std 2) represents an attempt at integration (that is, of history, science and geography).



Picture 1: *A Std 3 science teacher putting up notes*

2. The role of the teacher
   Category : MIXED
   While at the earliest stages, for example, with Breakthrough to Literacy (the mother tongue enliteration programme) the teacher acts more as a guide, later, and especially in the content subjects, she comes to be virtually the sole distributor of knowledge.

3. The role of the pupil
   Category: MIXED
   Although the pupils start by playing an active role, by the end of the junior primary phase they virtually never initiate any learning activity, waiting rather for the teacher to give them directions.

4. Participation in curriculum planning
   Category: TRADITIONAL
   As could have been predicted from 1, 2 and 3 above, the pupils have effectively no say in their curriculum. However, this level of negotiation may not be possible for children at this early stage in any event, although children sometimes do have a choice amongst activities.

5. The nature of learning experiences
   Category: MIXED
   Although the younger child has plenty of chance for independent interaction with learning materials, later, the accent falls on memory, practice and rote. There could be three extrinsic reasons for this: that the teacher is incapable of setting up learning experi-

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ences at a higher level, that she lacks the material resources to do so, and that it is made more difficult by the change of language medium (cf. Chapter 4 below on the curriculum).

6. The nature of punishment and reward
   Category: TRADITIONAL
   Although it is difficult to detect the affective contribution of reward, it is less difficult to discern that punishment is embodied in ridicule, and also, corporal punishment. Punishment for lack of understanding is now less common than for misbehaviour. (Punishment as part of teacher values is discussed in Chapter 5.)

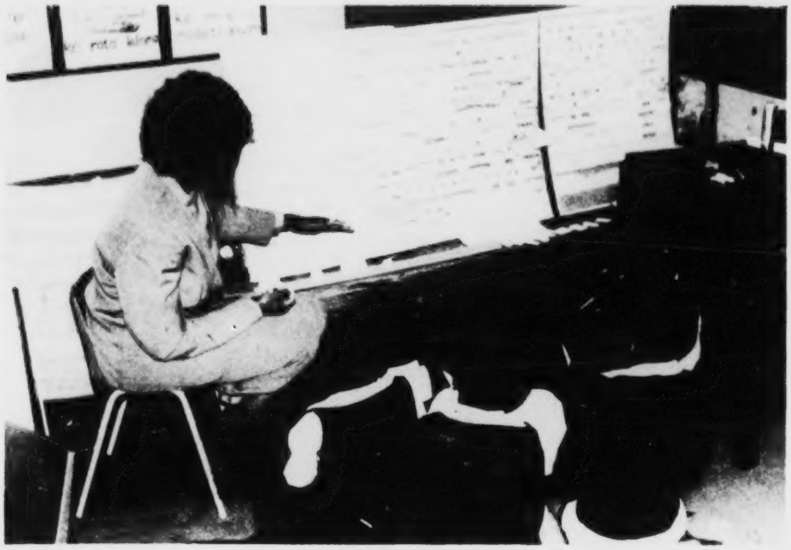
7. Area of development prized
   Category: MIXED
   Although the teachers give high priority, at least initially, to social and emotional development, later a higher priority is given to academic achievement. There is some doubt amongst (articulate teachers) that schools as they are currently constituted, could conceivably replace indigenous initiation schools as agents of "deep" moral education. This doubt would arise during the stage of transition between the traditional notion of knowledge being moral and empowering the individual, and the emergent, apparently much more value-neutral conceptions of knowledge embodied in activities such as reading and writing. (Later of course, these acquired skills may be used to debate issues of value.)

8. The nature of testing
   Category: PROGRESSIVE
   In the first four years of school, all evaluation is conducted on an ongoing basis. However, once again, over the course of the junior primary phase, the orientation turns to formal evaluation, since there are external examinations at the end of Std 4, the last year of primary school.

9. Co-operation versus competition
   Category: MIXED
   Although the teachers allow children to work together, they do not believe that they can help each other with learning (cf. 4.6 below on groupwork) and the children very soon know what the status of the ability groups is. This however does not prevent them from helping those within and between groups spontaneously. Praise is lavished on those "who know".

10. Location of teaching
    Category: MIXED
    The teacher moves between the teaching corner and the desks, but due to the absence of resources, teachers rarely have field trips for project work, for example, although cultural outings such as visits to the zoo are arranged for the whole school.

11. Accent on creative expression
    Category: PROGRESSIVE
    Much emphasis is given to the development of drawing and creative writing, although the first ceases by Std 1 and the second, very abruptly, at Std 3. Evaluation of this particular focus and its unintended consequences, is made in section 4.4 below.



Picture 2: *The Grade 1 teacher teaching in the "teaching corner"*

The consequences of all these aspects are also addressed in Chapter 3 below, where the teachers' central tasks are discussed. However, before we turn to that, it is interesting to reflect on some radical presuppositions of the child-centred approach, and see how these match up with the teachers' own presuppositions. There are two aspects to be examined: the relation of the child to his learning environment, and the teacher's role in child-centred teaching. The presentation, which derives in part from Westbury (ibid), is tempered by the balance which Dewey originally instilled into the conception of child-centredness. The discussion here will be developed further in sections 5.1 and 5.2.

1. Presuppositions about the child in relation to his learning environment

a. *Children's innate curiosity leads to exploratory behaviour that is self-perpetuating.*

In the context of the grades classes, the child's exploratory behaviour is limited by the range of resources that are available in the classroom. And while there are puzzles and games, these are not always replaced when they are worn out or broken. The question of resource management arises here. Apart from this, there are not endless resources to explore the world in a primitive scientific drive.

b. *The child will display natural exploratory behaviour if he is not threatened.*

The PEUP has a strong policy of no corporal punishment in the junior primary phase, and yet time and again there is evidence of such. However, the prevailing atmosphere in the grades classes is relatively free, and at the same time nurturant.

c. *Play must not be distinguished from work as the predominant mode of learning amongst children.*

Here the teachers argue that the child must learn to submit to the discipline of work; and again, by Std 1 much of the learning is not presented in a play mode.

d. *Children will explore the same problems collaboratively, or share important discoveries with others.*

Firstly, the children are not free to explore problems of their own choice, and hence the opportunity for collaboration or discovery of this type does not arise. What is observed is the spontaneous conversations in Grades classes, as children chatter while busy on parallel tasks.

e. *Concept formation develops slowly, from the concrete to the abstract; verbal abstractions should follow concrete experiences and not be a substitute for them.*

It is a commonly expressed adage of learning from the concrete to the abstract, yet it is difficult to apply in each subject. Mathematics is the best candidate, and here opportunities were seen to be used, with easily collected learning aids such as bottle tops and pebbles. However even in early environmental studies, children do not directly interact with the objects of learning. This may be due to teacher management skills, but also to the scarcity of pre-prepared learning resources. In the event verbal (oral) descriptions often substitute for direct experiences.

f. *Errors are a necessary part of the learning process, and they are desirable since they contain information essential for further learning.*

This precept is very much at odds with the beliefs of the teachers. As one said pithily, "There's nothing wrong with error, as long as it's corrected". There is a very fine art of weaving misconceptions into the salient design of the fabric of the lesson, and many teachers simply pass over error - not even signalling its nature or direction - during the course of class discussion. This practice may be a function of seeing knowledge as a package and not a process, while at the same time acknowledging the importance of interaction but not seeing its significance for the process(2).

(2.) It may be that teachers do not fully appreciate that the cognitive constructive process has as one of its forms, social transaction: and yet work by Kok (1986), discussed in the Reasoning Skills Final Report shows quite clearly how social motives in the learning situation constrain learning through reduced communicative cues.

2. Presuppositions about teachers and their teaching.

a. *Teaching must proceed from the interests and capabilities of pupils.*

Here, as has been pointed out, the teacher is bound to work from the syllabus, programme of work or textbook. In this case it is the task of central planners to discern the interests and capabilities of the children; and such is the fragmentation of knowledge, that subject specialists generally find it difficult to communicate with primary planners whose task it is to integrate the subject matter.

b. *The teacher should try to interest the children in subject matter that might not ordinarily interest him.*

Here we have that proclivity that Dewey warned about, the so-called "adventitious leverage" to give savour to material. In radical progressive education, the child would not have to engage with subject matter until it caught his fancy. However this attitude requires an extreme of individualised instruction. In the present system, the teacher is bound to present material in a way that interests the child. However, she has the additional challenge of presenting material that may be foreign to the child's everyday experience, and she has to build intrinsic connections for the child.

c. *The teacher must bring out the interests that underlie sustained involvement in learning.*

It is very difficult for the teacher to provide the necessary resources for the child where sustained involvement would take the child beyond the subject matter contained in the classroom. As a result, it is very rare for the child to do self-initiated work. Another reason for the absence of self-initiated work, seems to be that the child's learning mediators (his parents and teacher) would see little point in this - the task of the child is to learn his school lessons well. Extension work is usually confined to reading further in the class readers.

d. *The teacher must create a situation in which the child is willing to project himself into an activity so as to bring his own innate resources and innate sense of orderliness into play.*

This requirement strikes an odd note of discord in the present situation, since the notions of "innate resources" and "innate sense of orderliness" would not easily be qualities that the teachers would attribute to the child. The teachers values and the cultural notion of the child are discussed at length in Chapter 5, and it is in this discussion that we see how remarkable it is that teachers will be practising child-centred education, given that it is dissonant with much of their culturally received praxis.

e. *The teacher can only do these things if he provides an environment in which*

(i) children can move from activity to activity as they wish and need to,

(ii) the activities available for children are rich in educative potential, and

(iii) there is a balance of activities available in the classroom - raw materials, structured materials, reading materials, dramatic play - which truly communicate to the pupils who live in specific classrooms. The creation of an environment that will support student-initiated learning is the most important task for the child-centred teacher; and the selection of materials which become, in their turn, the bases of pupil activities is the most important planning task of the teacher.

It is this fifth statement that reveals most clearly the difference between the PEUP circumstances and those required for radical implementation. By and large -

(a) children do not move from activity to activity as they wish or need to, although within a subject time, groups may change activities, such as in Breakthrough to Literacy (cf. 4.1);

(b) activities are not "made available" to children except in "own choice" activities, which teachers often use to make up the backlog of previous work;

(c) except in the grades classrooms, there is not a great deal of learning material aside from textbooks. As we discovered during the research on science teaching, the textbooks are largely not usable by the pupils without extended, explicit mediation by the teacher. One of the critical findings of the present study was the implications of the shortage of child-centred materials on classroom learning tasks. This issue is taken up further in Section 4.6.

This section has served to introduce the characteristic teaching style which was observed in PEUP schools. We found that the style had aspects of both the traditional and progressive methods in it. On a continuum we could describe the methods as rather more progressive in the grades, and almost wholly traditional by Std 3. Factors such as syllabus requirements, change of language medium, and availability of learning materials are largely responsible for this change.

One other factor which has not been discussed is the use of ability-based group differentiated teaching in the PEUP schools. The way in which this model operates is described in the following discussion, in which particular problems of adaptation in Std 3 are the focus.

2.4 ADAPTING CHILD-CENTREDNESS TO THE GROWING NEEDS OF THE PUPIL.

One of the striking observations of the present study was that teachers in Std 3 have difficulty in using the classic PEUP methods(3). In order to detail the difficulties, it is important to start by describing the basic lesson structure that is prescribed. This is laid out diagramatically in Table 2.2 below.

(3.) The details of method used in the DET school and the convent are described at 3.3 below. Here we confine ourselves to an analysis of the major subject of study.

PHASE ONE	**TEACHER INPUT** Introduction		Children called to teaching corner	
PHASE TWO	Group 1 Small group teaching		Group 2 Occupational Task	Group 3 Occupational Task
PHASE THREE	Group 2 Small group teaching		Group 1 Classwork A	Group 3 Occupational task
PHASE FOUR	Group 3 Small group teaching		Group 2 Classwork B	Group 1 Classwork A
PHASE FIVE	no teaching input	Group 3 Classwork C	Group 2 Classwork B	Group 1 Occupational task

Table 2.2: *The PEUP model of differentiated group teaching*

The demands this structure makes on teachers is enormous, since the course materials used are not adapted for this kind of differentiation. The main arenas for use are in the languages and mathematics. We will look at the principles first, and then the process.

This kind of groupwork is based on the philosophy that while streaming is injurious to the child's self-concept, he nevertheless should receive work at his own level. Let it be said immediately that the intellectual status of the different groups is readily apparent to the pupils, even in Grade 1, even if the groups are labelled Lemons, Apples and Pears. Group 1 develops a strong identity relative to the others, and they are held up as a model for the others to aspire to. Group 3 children patently lack the self-confidence of their more able peers.

The teacher is responsible for developing occupational tasks, which are consolidation exercises that all pupils should be able to do. These are usually written on pieces of scrap cardboard and the teacher may develop a large collection. The classwork tasks are differentiated into three levels of difficulty, and are developed in relation to each specific lesson. If the teacher were to develop a set of such tasks for the language and mathematics classes for one occasion per week, she would develop 420 sets (with perhaps six copies, handwritten, of each set). There are two problems here: one is that the production of such materials is physically beyond the capabilities of such teachers. The other is that very soon, the differentiation of increasingly higher level skills may be beyond the capabilities of the teacher. For example, do teachers know that it may be more difficult for the child to fill in a missing word in a statement than answer a question to the same effect? One Std 3 teacher gave his first group an English paragraph sorting exercise comprising ten jumbled sentences. This was far too difficult for the children to do, and may well be beyond the capability of mother tongue children.

The net result of the physical and intellectual demands of differentiated teaching, we strongly suspect, is that it is not regularly done, although this varies from teacher to teacher. Certainly the Std 3 pupils clearly seemed to be unfamiliar with the practice, and indeed they reported to us that this was not what they usually do.

In the first phase of this teaching process, the teacher calls the children to the teaching corner, usually a carpeted area. While the sight of 50 Grade 1 children sitting at the knee of their teacher would warm the child-centred heart, the sight of 50 Std 3 children (some of whom are already adolescent) doing the same thing, leaves the educational heart cold.

If child-centredness entails entering into the child's potentialities, capabilities and proclivities, then it would mean that the child in middle childhood must be met in a different place. This place would be in task-centred project-based group work; yet once again we find ourselves against three barriers. The first is that projects usually require different kinds of physical resources; the second is that pupils would be hard-pressed to conduct collaborative group work in English. Thirdly, the demands of the curriculum are arduous and some of the concepts probably ungraspable. Hence the maintaining of a child-centred focus upwards in the curriculum will require a very clear vision of reconciling the child's needs with the school tasks (cf. 4.6 and 5.3 for further discussion).

Picture 3: *A teaching corner in Std 3 doesn't seem right*

In summary then, we have seen that the particular form that the PEUP has developed for differentiated groupwork makes major demands on the teacher, and further, that it needs some redevelopment of form for the older primary child. These issues are developed further in discussion in the following chapters.

CHAPTER THREE

THE FOUR TASKS OF TEACHING

3.1 INTRODUCTION

In this section we give a brief overview of the teaching and learning situation in terms of the four tasks we identified i.e. mastery, coverage, general features of class management, and the generating of positive affect necessary for learning. This overview will be filled out when we refer to aspects of the different subjects in the following chapter.

Teaching is an activity that is given its essential character by an intention on the part of the teacher to engender learning in his students. The teacher mediates between that which must be learned and the capabilities the pupils have for coming to an understanding of such. To fulfill her role, the teacher must perform three tasks -

- she must present that which which she wishes to teach;
- she must give her students opportunities to practise that which is to be learned;
- she must allow for potential lapses in the pupil's intrinsic interest in the experience he is undergoing, by setting up conditions which ensure that the pupils are both ready for, and interested in, learning (Scheffler, 1967; Komisar, 1968).

Westbury (1973) would claim that this conception of the tasks of the teacher holds for all teaching, and gives a worked example of the tutorial situation; however, he goes on to say that the classroom situation is necessarily more complex:

- there are numbers of pupils who are at different states of readiness for the particular learning at hand;
- the pupils have different ability levels;
- they have different levels of enthusiasm, and also
- different levels of willingness to attend to a particular topic at a particular moment.

The classroom itself is embedded in an organizational context which makes its own particular demands on the teacher, specifying also what the classroom should be like and what resources should be given to the teacher to perform her tasks - and these will constrain the way the teacher can approach her task.

Westbury sees the classrom as seriously modulating the conception of teaching derived from the tutorial: in addition to the three tasks outlined above - i.e. presentation and coverage, mastery, and creating positive affect, there is also a fourth task - managing a class of pupils that the teacher herself did not recruit, but whom she must get to work together in the interests of task attention and order (Abrahamson, 1970).

In the usual classroom, the teacher must meet these demands with only three resources, herself, a text or two, and such group climate as can be created by the school. And remembering that teachers are people with personal lives, they should be able to meet these demands in such a way that their output of energy into teaching is not exhausting.

3.2 MASTERY

Every year the child addresses a new set of skills and concepts which must be mastered. These are nominally covered in the syllabus, which varies in the closeness of its relation to the work done in the classroom. It is difficult to establish absolute levels of mastery in the junior primary, because the syllabi do not find realisation in content subject textbooks. This is because, apart from the language textbooks, the teachers create their own resources(1). For a discussion of the available physical resources and conditions, see 4.7 below.

In this study we examined the relative progression of the learning across the five years up to the end of Std 3: a cross-sectional slice was taken of the lower primary to the higher primary curriculum.

One question which immediately arises is: how do the teachers think that their pupils can best master their work? We addressed this question in the previous chapter, and showed that while the child-centred method would suggest that children would best master skills by exploring and refining their own individual concepts and skills, in practice this is not what teachers generally believe, and indeed, it is a difficult philosophy to implement in a large classroom, with few individualised resources. When we discussed the matter with teachers, one of them said to us that rote learning actually helps the child to understand (sic); another said that drilling is an effective method of learning. The reasons she gave for this were (for Std 3 pupils) that since some children can't read, "drilling is better", and that some of the children mix English and Afrikaans.

Mastery is supposed to be enhanced by differentiated learning. However, teachers may simply repeat a lesson, rather than giving input at a different level and pace. Teachers will also give children easier work to do, but the very serious question arises - of when they are going to learn their literacy skills properly if the differentiation starts too soon? For example, in the village school Grade 2 class, the lesson was about a calf that escaped from a kraal. Group 1 have to write a whole

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(1.) The basic problem with the development of lower primary resources appears to be finances. It is cheaper to give teachers a syllabus, a work scheme, or even a teacher's guide to work from, than to produce learning materials in about ten languages.

story about the incident; Group 2 have to write about what happened to the calf in the second half of the story, after it escaped and Group 3 have only to draw a picture and label it. In the end this last group finish their pictures in good time, and have the time to colour their drawings as well.

However, the Std 2 teacher in the same village school has the capacity to give imaginative, enriched lessons to the slower children. She gives the slower children extra help, as well as giving them more mother tongue support in the English lesson, in order to get them "in" to the lesson.

This same teacher observed that when the children reach her from Std 1, they need more than two weeks of revision work. This suggests that she is aware of the children suffering a cumulative deficit as they move up.

The fact that teachers have to create so much of their own material, means that, at least in one school, the principle of differentiation is jettisoned in favour of survival, since the teachers circulated the cards that were originally graded in terms of difficulty.

The children get very little feedback in the PEUP schools, as very much of the work is not evaluated, but simply initialled. Although this should happen in creative work in the languages, it is not appropriate that it should happen in content subjects like Environmental Studies, which would otherwise avail themselves of opportunities for the development of problem solving skills. Lack of feedback also seems to affect the composition skills: children in Std 1 in the village school simply write sentences that are unconnected, and have intrasentential faults as well. Their teacher, and most of the others, seemed to have made a virtue of non-criticalness, and as a result, the children get very little constructive feedback. It may be that teachers do not know how to give feedback on ideas and discourse structure - and this may strongly affect the range of feedback they can give their children.

The children do rather low level exercises in their occupational tasks: this could be considered a matter for some concern. However, there is some observation in Delamont (1987) about the fact that this practice, which is widespread, does not seem to unduly intrude on the expected levels of children's competence.

The invariate pattern of lesson in the PEUP schools seems to be:

1. *oral input (perhaps with visual aid),*
2. *oral questions, and*
3. *creative writing or question answering exercise.*

This pattern leads to a distortion of the original intention of the published materials, which is discussed in the sections below on English and Afrikaans. What it leads to is a pattern of skills which is rather narrow, and precludes reading and problem solving.

In the DET school, the predominant pattern of work was oral input and oral recall questions. Because the children were very much less likely to write than the PEUP pupils, it is possible that their skills were being even more narrowed than the PEUP, i.e. they were not being given an opportunity to develop and practise writing skills.

In summary then, although it is difficult to establish exactly what mastery levels are being attained in the junior primary, there are indications that the particular style of differentiated learning adopted, including very different levels of classwork, little feedback to the children, and limited patterns in lesson presentation, could be inhibiting development of the children's potential.

To take a broader Threshold Project perspective for a moment, we could say in a provisional way that the lower primary curriculum is not preparing the children adequately in terms of the process skills and language learning abilities that should have been developed by the end of Std 2.

3.3 COVERAGE

In coverage, the teacher must present that which is to be taught, presenting and covering a body of material. The factor which influences how the teacher gets through the necessary material would include the teaching style, the type of curriculum, and the teacher's expectation of her pupils' performance.

We have said that the teacher is expected to be child-centred in her approach, and that in the lower primary in the PEUP, this is in many ways being actualised. However, having to arrange three or four regroupings in relatively short periods, the teachers tend to use more time than allotted. If one is expecting the child to monitor his own pace, then it is difficult to work within a highly structured day. A Std 2 teacher pointed out to us the incompatability between the method and the curriculum. In many cases it seemed that teachers were expecting very little of the childen, and they in turn were producing very little. We shall try to illustrate these points in the following descriptions.

The lower primary teachers, if they are forced to make a choice, which they often are, will choose to concentrate on the three R's at the expense of the more peripheral subjects such as music, physical education and environmental studies. However, when subject teaching is introduced - in Std 3 in the PEUP, and Std 2 in the DET schools - one response of the teachers is to ignore practical work at the expense of real understanding, preferring to have "covered" the syllabus.

In the content subjects before Std 3, the teacher is expected to develop her own resources, and this can lead teachers to trivialise content. In one environmental studies lesson in a DET school, the teacher went through modes of transport with a toy car and aeroplane, and it was clear that she was patronising the children. If she had discussed with them the advantages and disadvantages of various forms of transport, perhaps they would have been challenged to exercise their reasoning powers.

Because there is an accent on creative expression in the PEUP, the children in the lower primary do a great deal of drawing. This will occupy so much of the allocated time, that the children will have very little time to do writing. For example, the children would have time to write only one sentence after drawing, in a period of half an hour. This accent on drawing is almost completely absent in the DET school, and at the convent, the children only really did drawing plus writing exercises in Grade 1.

To return again to the teachers' expectations. The children will work very slowly indeed on occupational tasks and classwork. The teachers make frequent reference to how their children slow them down - for example, in writing.

This is also a phenomenon in Grade 1 at the convent school, but from here on, children there cover much more work, especially written work. By Std 3, the convent pupils can have a discussion about a poem, and answer a set of comprehension questions, all within 20 minutes. Grade 2 children take 10 minutes to do a 20 item set of SRA (Reading Laboratory) questions. By contrast in the PEUP, in one Grade 2 classroom during a maths period, some of the children had only done three problems in forty-five minutes. This phenomenon of low expectations is not immutable though: before the introduction of Breakthrough, it was thought that Grade 1 children could not yet write words, simply letters. Now, as we will see below, they are writing discourse.

The time management problem also entails the fact that teachers will neglect creative activities periods per se. The teachers invariably use up the time for creative activities for finishing the daily tasks that the children haven't completed. In fact, one teacher said that this was what the creative period was intended for!

Coverage is also affected by teachers' conceptions of the nature and possibilities of a task. For example, in the urban PEUP school, in story time, the teacher uses up much time essentially repeating the same exercise. She tells a story, two children repeat it, and then she repeats it again with the reader in her hand, with extra details. The story is treated as an undifferentiated whole, and the teacher is not able to make use of oral language development strategies, such as prediction, alternative endings, etc.

Most of the teachers in the DET and PEUP schools researched said that they very often did not finish the work they set out to achieve in a day. And many were not confident about finishing their programme of work during the year. One Std 3 English teacher was only one-fifth of the way through the English course, when two-thirds of the teaching time had elapsed. At the same school, the Afrikaans teacher reported that since she had three books to work through, and since many of the children do not have the books, she does not get through more than 50% of the syllabus.

One of the realities of the primary school curriculum, is that there are frequent interruptions of the regular routine: there are activities like athletics, gymnastics, basketball, drum majorettes, choir, etc. These activities intrude on teaching time, and would clearly prevent the teacher from proceeding with her work - the pupils' concentration too, is affected.

In summary then, it seems that teachers are in general not able to cover their programme of work for a variety of reasons including their teaching style, the nature of the curriculum, low teacher expectations, and frequent interruptions in the school programme.

3.4 GENERAL FEATURES OF MANAGEMENT

In this section we look at the management task of the teacher - how she manages a class, a collection of children that she did not choose, but who must work together in the interest of task attention and order. We shall consider those aspects which do not have a bearing on groupwork or differentiation per se, but have to do with the teacher's way of helping pupils to get things done.

One of the critical features of management is that of time, which directly affects coverage; this we have addressed above. Problems with "time slippage" occur very early on in the school where the class teacher is not answerable to any other colleagues waiting to start a new lesson. What we would see for example, in Grade 1, was that the news period would run over time, and then so would religious education, so that the maths period would start fifty minutes late. (The Grades teachers tend to teach without any reference to a watch.)

Then would come the Breakthrough to Literacy period, and here the Grade 1 teachers would often run over twice the allotted time, i.e. more than one and a half hours for a designated 50 minute period. The response of two of the urban schools in the study to this time slippage is the unofficial policy of keeping the children who are officially released at 12:00 until 14:00. The reason given for this is that many of the children have to wait for their elder brothers and sisters before they can walk home, and so they might as well be kept in. Teacher will readily admit that they won't get through their programme of work if they don't keep the children late. However, play is also critical for such young children, and having to pore over their books for six hours leads to tiredness and inattention by the end of the day.

Even at this early stage (when there are no demoralising and/or difficult activities like learning other languages), the teachers lay the blame of not getting through their work squarely at the feet of the children: "they drag us" it is said.

One Std 1 teacher (village PEUP) tried to keep strictly to her time limits, unlike the other teachers, who didn't seem to mind running over time. However, although this teacher did try to keep to time, she was not able to carry out a full English lesson in the time allotted. The same is true of the Std 2 teacher in the same school, who while she gave a beautiful lesson (cf. English below), was unable to let the third group get a chance to write. What happens to these children is that they stay after school to finish up their lessons: the pattern of buying extra time is repeated.

There seem to be a number of factors that affect the management of time:

* it is difficult to get through lessons quickly with a large number of children in the class; even forming groups can take a little time;
* it takes time to control the learning resources for large numbers of children; it takes time for teachers to mark or even initial work;
* the teachers would seem to waste time when they use the strategy of group teaching to simply repeat lessons;

- children seem to need specific training to require adeptness at self-management; teachers are not equally competent at providing this training;
- if teachers do not have any sense of stringency about time, their children are unlikely to develop any; teachers seem in many cases to have a laissez-faire attitude to time;
- teachers do not manage their daily programme very closely; nor do they monitor their yearly programme with any kind of accuracy;
- the availability of resources will determine whether the children can get on with their own lessons, or whether they have to wait their turn for the use of required lesson materials.

There would not seem to be any simple solution to what is a multi-facetted phenomenon. Although it has been suggested that the processes of urbanisation and technologisation should alter the conception of time, this alteration still has some way to go.

An example is in order here. Firstly, in the DET school, which has an IBM Writing to Read Laboratory, the use of these expensive facilities is at a premium. For example, there are four Grade 2 classes, which means that the laboratory is booked up for four full hours per day. Here, the children would line up ahead of time and be waiting outside the door of the laboratory just as the lights inside were switched on and off, telling the children to finish up. (It has been suggested that this DET school was proposed as a recipient of the Writing to Read system precisely because it is so well managed. (H.P. Kotze, pers. comm.)).

To return to broader issues of management; there is a pot-pourri of points to be made here:

a. The PEUP village Std 2 teacher got her children to manage themselves admirably, apart from her own broader management of whole groups. Whenever the children have finished doing their occupational task or classwork, they would automatically fetch their readers (any of the three languages) and carry on reading.

However, this same teacher's pupils, when they reach Std 3, no longer occupy themselves. One reason for this is that they cannot easily move out of their long desks (five sit in a desk designed for four), but the reason the children themselves gave us was that they don't bother to do it, "because the teachers come in too quickly". In fact the periods are generally shorter in Std 3, because there are rather more subjects to cover. The Std 3 teachers we interviewed said that teachers find it hard to finish their lessons within the allotted half an hour, and so often the next subject teacher has to slip in, sit down, and wait. So, it seems that children's self-management skills are strongly a function of what the situation will allow them to do.

Picture 4: *Std 2 children fetching reading matter*

Picture 5: *The Std 3 children unable to move freely*

b. The teachers have a large burden in the number of books they are expected to mark. If the pupils have done three written exercises in a day, the teacher will have 180 books to mark. Because of the orientation of the PEUP towards creative writing, and because there is a shortage of

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reading materials in the different subjects, the children generate a massive amount of writing. In the DET school, however, there is no such emphasis, and the children's books are relatively empty by comparison. To compound the irony, the DET children are examined on what little is in their classwork books (and this may be a gaunt skeleton of "facts"), but the PEUP children are not examined on their plethora of writing exercises (and yet these are not evaluated thoroughly in an ongoing way, a point which we make elsewhere).

c. The PEUP teachers often have the children singing while changing from one activity to another. The songs are either Setswana or English (MAPEP) songs, and serve the function of signalling to the children what they should be doing, stopping them from carrying on with their current task, and obviating an idle chatter while children move about the class.

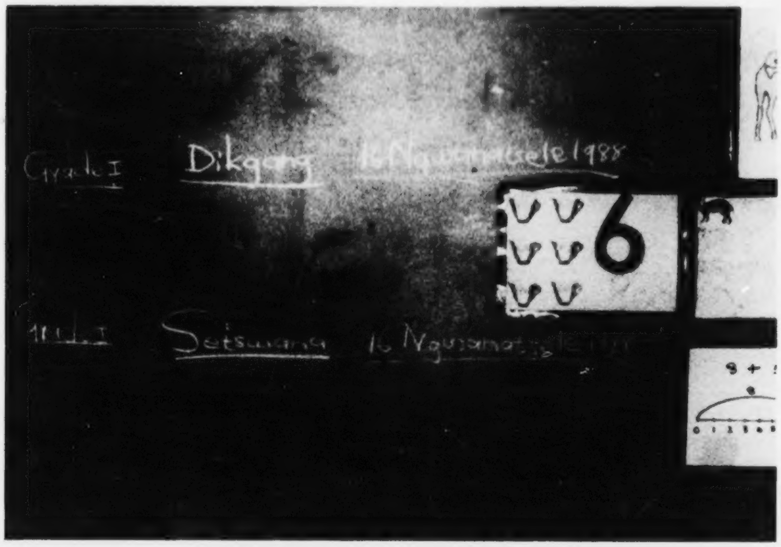
d. A perennial problem which can cause a surprisingly large hiatus is the shortage of pencils. The children are often without even the smallest stump, and they are usually asked to borrow from their friends. The children do not always admit to their needs and may either not report to their teacher what their needs are or else wander around until the teacher asks them what the matter is. A great deal of an individual's time is hereby wasted. When the Grade 1 teacher finds a child who hasn't owned up to not having a pencil forty minutes into the lesson, she irritably says to him that he doesn't like school: this is a rather broad inference for the teacher to have drawn! (This same class, when they were going to be photographed on another occasion, were all supplied with long, sharpened pencils.)

e. A moderately high level of noise is tolerated in the PEUP classrooms. The teachers would discipline the children in mock seriousness e.g. "I'm going to check your books; just continue making noise, but if I find you doing no work, mmm!" But this teacher could make a joke too: she asked one child if she was holding a church gathering and giving a sermon. The teacher-centred classes tend to be much less tolerant of noise - here noise is a signal that due attention is not being paid to the unique source of information, i.e. the teacher.

f. The teacher may not be training them to look ahead: for example, when they have been to the toilet, she asks them if they have washed their hands, which they haven't, and therefore get an opportunity to go out for another five minutes. It is astounding that this should happen when the children are two-thirds of the way through their Grade 1 programme. But this may not be altogether culture-specific: the convent school teacher also seemed to expect her Grade 1 girls to act thoughtlessly and without due consideration for the consequences.

g. The grades children seemed very relaxed with their teachers. They pushed and pulled, and tried to get their teachers' attention. The children did not always know what they are supposed to be doing. For example, the Grade 1 children could show a measure of passivity until their teacher showed them exactly what to do. For example, in the village PEUP school, the children refused to change from religious education to maths until the teacher had specifically instructed them.

h. There is the concept of uniformity of practice which prevails in the PEUP which is not always to the advantage of the younger children. For example, the youngest of the children have to write the subject, their grade, and the date, whereas the first two pieces of information are competely redundant, e.g. Grade 1: Dipalo: Phukwe.


Grade I
Dikgang
Setswana
6

Picture 6: *The headings written for each lesson.*

Picture 7: *Cleaning the classroom at breaktime*

i. The children take responsibility for cleaning the classroom in the PEUP. The children in the DET have the bigger children coming to clean their classroom, and the convent has a full-time cleaner. The children clean their classrooms twice a day, at break and at the end of the day. We found one group of small children using little rags, and they didn't want a broom, because that would only get stolen. Other children might use grass broom heads. j. The children's self-management skills are considerably better when they are about to embark on a task they manifestly enjoy. e.g. in a Grade 2 class, the writing lesson, versus environmental studies; in the writing lesson, only 26 of the children actually got on to the beginning of their task in the time allotted, and the children seemed able to find their books much more efficiently in order to draw a picture for environmental studies.

k. It may be the case that the "urban" children are much more likely to manage themselves quickly than are the "village" children. The former children are better turned out, and move more quickly and confidently.

Picture 8: *Confident urban children enjoying an outing*

l. The "time on task" appears to increase greatly with teacher-centred teaching: in other words, a great deal of time is spent on management in group-centred classes. This phenomenon is also reported by Galton (1987) in British classrooms. He observed that only 50% of all class time was spent on tasks. However, children continue to learn at the expected level. It would seem to make sense that if children are learning to manage themselves and also their own learning, they might well require less drilling to assimilate a given amount of content.

To summarise the main points that need to be borne in mind about management:

* Although we have not discussed groupwork directly, the use of this method has different implications for management than conventional

- Although we have not discussed groupwork directly, the use of this method has different implications for management than conventional classwork: it would necessarily be more complex, and expect more from the children.
- There are still widespread manifestations of difficulties with the management of time, although the level of problem varies from teacher to teacher.
- Management is also a function of physical resources; for example, there are certain things pupils cannot do if they are trapped in a desk as opposed to freely seated around a table; children without pencils slow the process of learning for everybody.
- Younger children bear themselves differently from older children, and a difference also obtains between "village" and "urban children".
- Although it is easier to control the children in a teacher-centred class, there are certain skills of independent learning that the children will not learn in this environment. Also, the apparent orderliness of such a class may have a false positive value within the school system. Nevertheless the teacher-centredness of the convent school contains much more cognitive activity in interchange than does the teacher-centredness of the DET and PEUP classes where it obtains.

3.5 GENERATING POSITIVE AFFECT

One of the tasks of the teacher is to bring the children to a point where they would like to learn, even though, in practice, they do not have a great deal of control over what or how they learn. It is generally supposed that children will learn more effectively if they are favourably disposed towards what they are doing. It would seem that a positive attitude would lead towards positive affect.

In the situation that we were researching, it would seem that the control of affect is patently the domain of the teacher, who by and large, has relatively passive, biddable children. However, the fact that the children are not affectively autonomous, can make them part of a closed system which is dominated by the teacher's general attitude and specific mood. The children will watch for signs of tolerance and latitude very closely.

In practice the teachers seem to have a very pragmatic approach to their children's affect; they think that they have a job to get done; they are not entertainers, they don't need specific affirmation from their pupils, but they have particular expectations about what good learning behaviour entails. It entails doing what is expected of you, and not attempting more than that unless it is explicitly asked.

The notion of generating positive affect seemed rather strange to many of the teachers whom we talked to. They puzzled over it somewhat and several of them came up with the notion that it was good to activate a spirit of competitiveness amongst the children. This they thought was best done by asking children to do extra work, and then to hold up this work as a model to the rest of the children. We found the observations rather startling that it is a good thing to compare children publicly, We had discussions with the teachers about the effect of having different ability groups within one class. It was clear that the children know what the significance of the different groups is, even when they have names, rather than rankings. By the higher classes, the children will openly talk about how slow Group 3 is. The teachers have very few expectations from the slowest groups, even at the earliest stages; when we asked a Grade 2 teacher to get children from Group 3 to describe common cultural experiences like what a wedding is, she clucked her tongue before the children and said that we could expect little from them. It is not clear what the long term developmental effects are on children who are labelled from a very early stage as having very little promise.

During the course of teaching, explicit personal praise for a child was never observed. The teacher might get the class to acknowledge correct or good work by having them clap or wave ("shine"), and the common understanding between teacher and children is that encouragement is better than criticism or cruelty.

While some teacher mentioned the encouragement of competitiveness, there were others who referred to the things that children liked when learning. They had in mind specifically, learning the "play way" (with the younger children), as well as learning with the aid of pictures ("children find it hard to learn about things just by talking about them"), and also dramatisation. In our observations, we saw many instances of teaching with pictures, and while it is clear that children are stimulated by them, they are often used to teach content rather than process. However, the children would obviously be drawn to them, especially when they live in a drab environment, unenlivened by picture books or television.

It is also clear that the children thoroughly enjoy oral performance, whether it is telling of news, a story, or a group dramatisation. This predeliction is well-attested.

Picture 9: *A Grade 2 class enjoying oral work around a MAPEP poster*

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formance, whether it is telling of news, a story, or a group dramatisation. This predeliction is well-attested.

In many of the classes there was a teacher's "pet". If the teacher had her own child in the class, she or he was invariably the pet. The pet was usually a very competent child, who was asked to do many of the routine "chores" that delight a childish heart. The child would very self-consciously go about her tasks. One noticable exception to the rule was found when we went to give a class a presentation for participating in our science research. When the teacher received his present he called upon his "favourite" boy to come up and open it. When we asked why this child was his favourite, he said with a smile - "Because the other children undermine him". The boy very proudly opened the parcel, which contained a tie, and showed it to the enthusiastic class. After this the teacher called upon another child to make a speech of thanks. Instead of it being the child most adept at English, the teacher called forward a rather hesitant girl, and interpreted what she said slowly but sincerely in Setswana.

There is a certain ascerbity in the school environment that is readily noticable to English-speaking researchers. Quite clearly a different *system* of affect is operating. Since its parameters and specific effects have not yet been documented, final comment is reserved except for the observation that this might be a very fertile ground for research.

Recently published work by Whiting and Edwards (1988) indicates that there may be gross differences in school discipline across cultures; for example, they describe the harsh discipline of Kenyan teachers with the laissez-faire attitude of Indian teachers. They do not, however, attempt an explanation of what might underlie these differences.

In the lower primary, given the nature of the tasks, the children are likely to experience a certain amount of self-determined competence. However later the classroom atmosphere becomes more formal, and it seems to be the case that the locus of control is clearly the teacher. This shift in the locus of motivation has been noted in other educational departments (cf. Green and Foster, 1985), but the disparity between the lower and the higher sections may be the more noticeable in a situation like the PEUP for at least two reasons: the higher primary teachers fall back onto authoritarian (extrinsic motivation) styles either because of the demands of the curriculum, or because they have not fully internalized a viable alternative model to the traditional pattern.

In summary about generating affect then, we have observed that:

* teachers have a pragmatic approach to getting their work done;
* they might often encourage explicit comparison and competitiveness;
* at least in the grades classes, they understand what kind of learning their pupils enjoy; and
* they are working within a system of affect generated within a goal/motive structure that would warrant further research.

We have come to the end of the overview of the four tasks of teaching that the teacher undertakes. Most of the issues that have been dealt with under mastery, coverage and management will be touched upon again more or less explicitly in the following chapter, when we set out some of the details of our observations on specific subjects.

CHAPTER FOUR

ASPECTS OF THE LOWER PRIMARY CURRICULUM

In this section of the report, we give what might appear to be an anecdotal impression of aspects of the curriculum. Strong conclusions about the teaching of different subjects should not be drawn from the discussion which follows. However, the description is given to offset and complement the abstract level of discussion in the previous two chapters.

4.1 THE MOTHER TONGUE

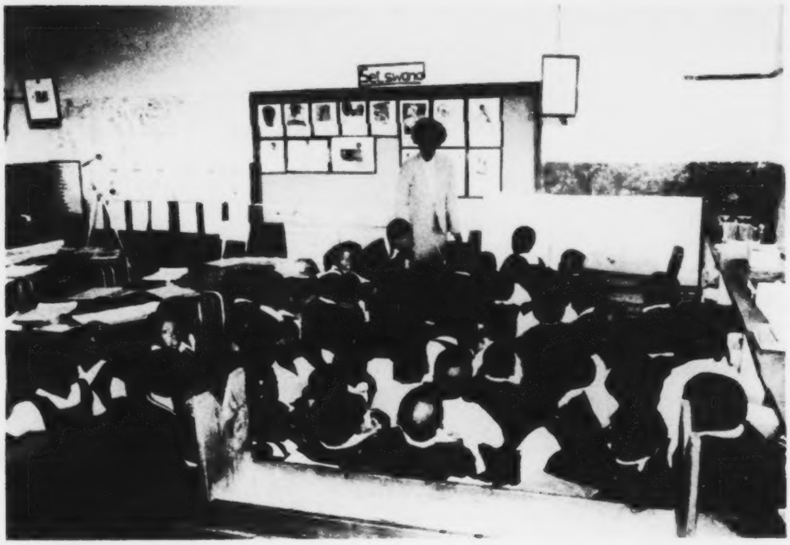
In all the schools we observed, the Breakthrough to Literacy method was used for mother tongue enliteration. The South African editions have been adapted from the course Breakthrough to Literacy, which itself was prepared in Britain by the Schools Council Programme in Linguistics and English Teaching. In Britain today, some 30% of children learn to read using this method.

Breakthrough is an integrated approach - reading, writing, oral work and phonics are all meaningfully linked in a series of activities. In the aims and objectives of the course, the syllabus requirements are more than adequately met. The 18 objectives that are laid out in the Teacher's Manual (1982) cover a range of skills: for example, three of its purposes are -

Each child should:

- be able to compose sentences in his sentence holder, copy them into his personal story book, and then read them back to his teacher or to the other children in the group;
- be able to write a story or a description at least three sentences long, stimulated by a picture, and the given title without explanation;
- be able to read fluently from the reading material which is part of the course, viz. the Breakthrough readers, the children's own readers and the "library" passed around.

Breakthrough is a child-centred method, as the child progresses at his own individual rate. Teacher-centred work is done only in phonics. Obviously each child is not taught individually, but within the small group method, the child is on his own while doing occupational tasks. Given the average time allocated to Breakthrough - 50 minutes per day - the teacher would be able to spend about ten to twelve minutes with each of the four groups.



Picture 10: *The class gathers for a Breakthrough lesson*

The course is divided into three stages:-

1. The class is divided into four social groups. Each group is introduced to the teacher's sentence maker and they gradually learn the first set of core vocabulary words (thirteen words and seven prefixes). The groups that are not with the teacher do simple occupational work such as drawing pictures, practising letter patterns, etc. At the end of this stage the children are assessed, tested, and placed into four ability groups.

2. The children start using the pupil's sentence maker to do their own reading and composing of sentences, and they learn the rest of the core-vocabulary words. They start reading their own work and the Breakthrough readers. When a child's sentence maker is full and he no longer needs it for reading and writing, he is then ready for the next stage.

3. Here the emphasis is on communication. The children write stories, descriptions and reports, and read these and the Breakthrough readers to one another and to the teacher. They have "broken through to literacy".

The children that were observed in August in the village school were mostly at the Stage 2 level with the slowest group at Stage 1, still learning their basic vocabulary. During a follow-up visit in November, one of the groups had reached Stage 3 (about 20%) of the class, while the rest were at Stage 2. The teacher explained that the rest of the children would still have a chance to get through, as the children take their kits with them for the first term of Grade 2. After the Easter holidays, the kits are given to the Grade 1 children, who will just have completed their school orientation programme.

Picture 11: *Group One breaks away for individual work*

The classes that we observed in the PEUP schools were all using a more-or-less orthodox method with Breakthrough, although the children might have been doing a slightly narrow range of occupational tasks. It would be hard to say how effectively the objectives are met, since this would have to be assessed on Grade 2 class at Easter time. However, the children seemed confident and happy, and all were able to do some writing.

Picture 12: *Group Three working on sentence development*

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The DET school was using a rather impoverished conception of Breakthrough, as the teacher had not been trained on the method, but had merely observed it in the Moretele Circuit. Furthermore, she was the only Grade 1 teacher who had used Breakthrough, and hence there was no sense of team support. However, the principal was concerned that the method should be used. The different groups were doing preliteracy occupational tasks, e.g. copying shapes, and the teaching group had no sentence makers, and merely drew the picture of the sentence they had practised - i.e. mother is cooking meat, etc.

The convent school, on the other hand, was using a richly adapted version of Breakthrough. The Grade 1 teacher there, who has taught for 40 years, has adapted the method to be more phonics based in its orientation. She teaches her children early phonics based on the core vocabulary in the course(1). When the children have mastered this, they fly through the words in the sentence makers: Stage 2 takes very little time at all. In fact, when we visited her classroom in early September, all the children were through to Stage 3 already. They had read their way through the English (UK) Breakthrough readers. It was startling enough to see all the children doing free reading and writing. But what was even more startling was the contents of the reading scheme cupboard. The teacher had no less than ten reading schemes in there, about 180 books in all and this did not include the more than 200 books in the class library.

One of the difficulties with the use of Breakthrough and class management is that at stage 2, when the teacher still has to hear the children read their sentences, there is an immediate log-jam as the children start to queue while she tries to work with another group. The schools try to remedy this difficulty by having the principal come into the class when it is Breakthrough time. In the British evaluation of Breakthrough conducted by Reid (1974), the need for ancillary help was also noted. The children need extra monitoring when they have written their sentences, and when they want new words for their sentence makers. Reid suggested that either vertical grouping (where more mature children act as monitors) or the class not all doing Breakthrough at the same time would help ease the situation. We suggest that either of these solutions is in principle implementable, and that in the second option, half the class could be busy with mathematics. There could be a 2x50 minutes session of Setswana-Mathematics.

This burdensome aspect of the implementation of Breakthrough should be realistically addressed since it constitutes one of the central criticisms of the method by policy makers. Some informal, in-depth research into the practical solutions the teachers have adopted is strongly indicated. Another aspect of the course which has been criticised by language planners is that the breaking of the bound forms, the subject prefixes, from the root noun is something which cannot occur in real language. However, the proliferation of basic vocabulary cards which

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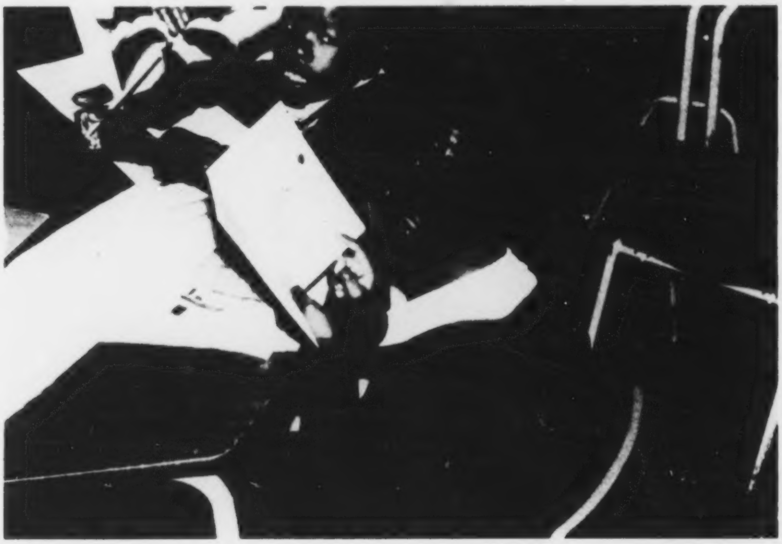
(1.) The core vocabulary is very similar in Setswana and English, e.g words like home, mum, dad, bed, brother, sister, girl, boy, friend. The bound morphemes in the two languages are rather different, and English has prepositions, where Tswana has only highly specific locative words, apart from the generalised locative ending.

would result from putting singular and plural forms in separately might render the sentence maker unworkable.

It was mentioned earlier that it is difficult to make a "realistic" appraisal of the children's progress during the second half of Grade 1. The way the course is currently implemented gives the impression that the children should have made their way through the system within the course of twelve months. Yet Reid, in her appraisal in Britain, found that there were children who needed the help of the sentence maker into their third year of primary school. In the present context, this kind of flexibility would require fairly sophisticated materials management, since one set of materials would have to move from class to class within the course of a single day.



Picture 13: *A Group One child reading fluently after six months*

Apart from this practical suggestion about the continued use of the materials, it does seem necessary to recommend further work on the levels of reading and writing achievement that can be achieved, in order to set feasible objectives for the new junior primary curriculum. Only anecdotal evidence is available about the current levels of achievement.

Of general concern is the wide-spread observation that there is very little children's literature to consolidate the reading developmental level that the pupils have achieved at this early stage. This lack of literature is partly an anti-mother tongue heritage of the apartheid policy, more recently compounded by vested national language planning interests. This is a great pity since the exposure of children to story books, preferably before school, is a factor critical to general academic achievement.

The British experience of Breakthrough showed that children developed interest, confidence, and a sense of achievement when using it. This observation is widespread amongst local proponents of the approach. What we saw was that children showed the greatest sense of achievement in Grade 1, when the demands of mathematics is not yet great, nor yet the load of a second and later a third language. There seems to be an unbridled enthusaism for learning, here.

One of the most marked impacts of Breakthrough has been on the fundamental orientation of the teacher. It is probably true to say that the cornerstone of the building of a child-centred curriculum is in the introduction of Breakthrough. When the teacher learns to use Breakthrough, she is given the basic tools of child-centred groupwork. It is difficult to conceive that the PEUP could have made the innovations that it has, without building on Breakthrough.

In the use of Breakthrough we saw typical patterns that emerged in other aspects of teaching, such as time management, and the management of groups. Holderness (pers. comm.) reports that the PEUP have even produced a tape-slide show demonstrating the effects of the Breakthrough method across the wider curriculum. The group and time aspects are taken up in other sections.

Apart from Breakthrough, the teaching of the mother tongue as a subject continues through the rest of the school curriculum. It is outside the competence of the present author to make detailed remarks about the adequacy of the learning materials in specific linguistic terms, but some tentative observations may be made. Some specific empirical observations will help to paint the picture of the general orientation towards mother tongue learning.

Picture 14: *A typical PEUP library trolley*

One Grade 1 teacher doesn't read to her children, because she feels that she can't control them; instead, she tells them a story. She doesn't feel that it is necessary to read to the class. (This teacher, and most

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of the others don't read to their children at home.) They don't have any books on the library trolley for this level, and the library trolley, such as it is, resides in one of the Std 3 classrooms. It does not have any Setswana books on it.

The children whom we observed seemed to find phonics very easy; their auditory discrimination is very well developed, possibly because of the regularity of the spelling system. The children shout out the answer to the teacher, and also insist on going on with the lesson: it is obviously a pleasurable experience. The teachers seem to use the phonics lesson also as a vocabulary building exercise.

The teachers feel free to exercise their own creativity to a large extent in the mother tongue. For example, one Grade 2 teacher developed a vocabulary lesson on words to do with "fastness" and "slowness"; the vocabulary documented attests to the richness of the Setswana vocabulary, although in this particular instance, some of the words might seem of little relevance to the children.

In line with group differentiation, one teacher gave a lesson on wheat farming, and then asked the Group 1 children to write an advertisement for wheat crops, Group 2 children to write a letter asking for a loan to pay farm workers, and Group 3 children to write sentences using specific words.

There seemed to be marked difference between what the teachers could achieve with the children in the two different PEUP schools. For example, one Grade 2 class wrote more structured creative writing, while another class wrote much more rambling discourse. The device of using magazine pictures to stimulate creative writing must sometimes seem boring to children: often people will be looking happy and doing predictable and perhaps desirable things (for isn't this what living in advertisement world is like?) It is a great pity that children can't be stimulated further by pictures of increasingly more complex situations and processes.

The teaching, including religious education and the mother tongue, tends towards the moralistic. For example, one teacher transforms a story about a singing rooster who wakens a bear, into a moralistic tale - that one should not disapprove of what others do, just because one is bigger.

The children will often speak a local or township dialect, but the teachers will be expected to speak the standard. The teacher would speak in the standard, and the children would respond in the dialect, and be corrected by the teacher. This problem is particularly severe in the village school, where the local dialect is a Sepedi dialect of Ndebele. (The Bophuthatswana Department of Education runs only Setswana-medium schools.)

However, in many cases it seemed that the teacher has not mastered the standard dialect. Evidence of this was attested in both the teacher's spoken language, as well as language on the visual aids. The most obvious instances of this occur with teachers who have learned Sepedi as a second language, and are then expected to teach Setswana (they will not easily be sensitive to Tswana dialect differences themselves in this case).

The materials that are extant date from the sixties, when several language series were developed. As might be predicted, they are structuralist readers, with stories and discrete point language exercises. The development of language teaching theory would indicate that they are deficient in areas only recently developed, such as the teaching of writing skills - narrative and expository, and the teaching of higher order reading skills such as skimming and scanning, note taking, etc. The narrowness of the older conception of language learning is reflected in the narrowness (at least of the Department of Education and Training) of the syllabus too, although current initiaives at syllabus revision should go some way to remedying the situation.

In the PEUP there are teachers' resource guides developed over the past nine years. The concern in this work seems to be to preserve particular aspects of knowledge about the Batswana culture (perhaps it could be aptly named Batswana Studies), although much of the work is creative and ingenious. Here though there are diminishing returns, with the guides for the early classes showing real sparkle and creativity, while the later ones are hardly better than the language books they are meant to supplement.

What is presented now is a brief summary on the received theory of reading (cf. for example, Chall, 1983) with commentary on the difficulty pupils would have in passing from Stage 2 to Stage 3.

The stages of reading that we would assume that the children would take are the following. In the first stage of initial reading, the essential aspect is learning the arbitrary set of letters and associating these with the corresponding parts of the spoken words. In this stage children internalize cognitive knowledge about reading such as what the letters are for, how to discriminate between the levels, and how to work out when a mistake has already been made. The transition from Stage 1 to Stage 2 comes when the child discovers that the spoken word is made up of a finite number of sounds. Because it is difficult to hear the same sounds when they are in different positions in a word or different contexts (i.e. following vowels or consonants) a capacity for abstraction seems to be important, even in Stage 1.(2)

Reading in Stage 2 consolidates what was learned in Stage 1. Stage 2 reading is not for gaining new information, but for confirming what is already known. Because the content of what is read is basically familiar, the reader can concentrate attention on the printed words, usually common, high frequency words. The reader can take advantage of what is said in the story, matching it to his knowledge and language. More complex elements of phonics may be learned. In summary, what most children learn to do in Stage 2 is to use their decoding knowledge, the redundancies of the language and the redundancies of the stories read. They gain courage and skill in using context and thus gain fluency and speed. It is not clear whether the children we observed have the library resources to make the gains that they should at this level. It seems to be logical

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(2.) The development of metalinguistic knowledge in the narrowest sense of vocabulary such as word, letter, sound, etc., is well designed in the concrete aspects of the Breakthrough Materials, as well as in the phonics exercise, which is thoroughly integrated.

that they would need a wide exposure to story books, something which they simply do not have.

The kind of environment that fosters Stage 2 is one which provides opportunities for reading many familiar books - familiar because the stories are familiar, the subjects are familiar, or the structure is familiar, as in fairy tales or folktales. The notion of familiarity could be problematical in the context under discussion; while folktales do seem to have currency, other, more sophisticated situations may be inaccessible to the child, and hence render them more difficult to access via print.

The greater the amount of practice and the greater the immersion in reading materials, the greater the chance of developing the fluency with print that is necessary for the difficulty ahead - the acquisition of new ideas in Stage 3. Children are at a serious disadvantage if they do not have access to books in the home, or from libraries. If children do not have books, they lose out on the emotionally confirming experiences that books and reading matter bring. Preliminary data from the Socio-Cognitive Milieu Project at the HSRC indicates that for township preschool children books are rare but salient objects; the books the children tend to interact with are school textbooks of elder siblings (Liddell, pers. comm.). They would therefore perhaps have high status but not high instrinsic content interest value: It would be preferable that they would have their own story/picture books to interact with.

It is important that the lower primary phase attempts to bring children to Stage 3, where they start on the course of reading to "learn the new" - new knowledge, thoughts, information and experience. Because their background (world) knowledge, vocabulary and cognitive abilities are still limited at this stage, the first steps of Stage 3 reading are usually best developed with materials and purposes that are clear, within one viewpoint, and limited in technical complexities. Very little new information about the world is learned from reading before Stage 3; more is learned by listening and watching. However, with Stage 3, reading begins to compete with these other means of knowing.

In the current curriculum (DET and Bophuthatswana) learning about new experiences opens up dramatically at Std 3. In the newer curriculum as it is currently conceived, much of the subject matter of Std 3 is being put into the Std 2 syllabi. Hence, this new learning would of necessity take place in the mother tongue. Currently, the children are expected to tackle these new frontiers of information in English; so, much of what has been said about reading is apposite to the learning of the second language as well, which compounds the learning demands of the pupil. Before we pass onto further discussion about Stage 3, it should be remembered in general terms, that this development will probably be contemporaneous with the language medium change, in whatever way it is finally conceived in detail.

In Stage 3, readers need to bring knowledge and experience to their reading, if they are to benefit from it. Children also need to learn a process - how to find information in a paragraph, chapter or book, and how to go about what one is looking for efficiently. It is very important that children reach the beginnings of Stage 3 before they have to deal with typical content subject textbooks. Otherwise they are in danger of never keeping up with the rapidly growing demands of texts in the higher primary school. However, if they do not get adequate exposure to "familiar" texts in the lower primary, they are likely to falter and fall behind for the remainder of their school careers.

While Stages 1 and 2 are *necessary* for the development of Stage 3, they are not *sufficient* for its development. In order to move easily to reading the more difficult content materials in Stage 3, pupils need to know more words and concepts, they need more information on a background level, and they need to be able to reason on a more mature level. Thus growth in language, knowledge and cognition are needed along with a growth in decoding and fluency. The growth in language can be achieved by a rich lower primary reading programme, but the knowledge and cognitive learning must simultaneously be nurtured through an enriched mother tongue literacy programme.

In this section, we have looked at the early acquisition of literacy skills, as well as later language work -

* Breakthrough was used in all the Grade 1 classes that we observed, and this seems to be a system that works very productively. However, the more direct use of phonics in the system might prove useful;
* there are possibly problems generated by the fact that the teacher and the children are not always able to speak the standard dialect;
* the materials that are available for the child to learn from after Grade 1 are either rather conservative or perhaps a little too oriented to cultural (rather than language) studies; there is clearly room for development of language schemes that address the full development of all the language skills, i.e. reading, writing, speaking and listening;
* it seems unlikely that the children are able to develop their reading skills to a high level required for extracting information (albeit simple) from expository text. If these skills are not developed in the mother tongue, they are unlikely to be developed in the second language.

4.2 AFRIKAANS

Afrikaans is taken as the third official language in the PEUP (after Setswana and English) and the second official language (the mother tongue not having official status) in most of the DET schools. This means that it is introduced in Std 1, and continues as a subject for the rest of the school curriculum. In the convent school, Afrikaans is introduced at an oral level from Grade 1.

It seems as though there was no communicative Afrikaans course for second language learners available at the primary level (but we do know of materials writing currently under way). The courses used in the PEUP and at the convent are structuralist in conception, and furthermore, have insufficient support material for meaningful learning. For example, in one Std 1 lesson that we observed, the teacher was teaching children about energetic and lazy boys, and there was nothing in the text to give children any idea what these terms might refer to.

The PEUP course is also far too long to be finished in a conventional year. Apart from this, many of the children do not have copies of the books; this means that they have to take turns to use the books for doing classwork exercises. Otherwise the teacher has to write up classwork exercises on the chalkboard.

In order to serve the needs of differentiation, teachers try to adapt the lessons for their three groups. The problems of contextualisation (making the situation meaningful and relevant) are only compounded in this attempt. In their attempts to adapt the materials, the teachers also try to make materials more like MAPEP, for example, starting with an oral session based on a poster. For example, one teacher drew a picture of a farmyard to give an oral introduction to her lesson. However, in this attempt, she had covered very little of the programme as specified in the textbook, and so this kind of exercise might cause problems if the textbook series is tightly integrated, and the children start a new book every standard.

The way that the course material is set out will also encourage teachers to treat vocabulary as a separate aspect from its use in context. For example, a Std 2 teacher gave a whole lesson on the names of tools e.g. hammer, screwdriver, and these were learned as discrete items. Another Std 2 teacher (DET school) composed a little routine about different jobs and their functions, and the pupils spent the best part of two periods reciting the lines in turn, by rote. To exacerbate matters, the teachers tend not to give their classroom instructions in Afrikaans, which is the one situation in which they *could* use meaningful language.

In one class, the teacher had prepared a structural pattern for the teaching group, which required the minimum of comprehension. They were to make sentence patterns from the substitution table:

Piet het sy jas aangetrek	Dit was koud	omdat wanneer as

The word order change required could be effected without understanding anything about what the sentence was about. The children patiently took turns to make the different sentence patterns. At the same time the other groups were doing exercises for which they were ill-prepared. They did not know what a "werkwoord" (=verb) is, nor did they know the meanings of the words they were to make sentences with. This was one occasion that there was more participation than observation from the researchers!

There is the appearance that the children understand very much less Afrikaans than English, partly because the English courses are superior, partly because they have a positive orientation towards English as future medium, and partly because they start learning Afrikaans later. Although we cannot make any definitive statement about the standard of Afrikaans, we can moot the possibility that learning a third language is detrimental to the learning of the second language that is to serve as medium (cf. Haasbroek and Botha, 1988).

In summary, Afrikaans tends to be taught as the second official language, and it is not taught communicatively. Where teachers attempt to adapt materials or construct their own, they run into problems. It is possible that the learning load of the children could be lightened by introducing the second official language rather later in the curriculum.

4.3 ENGLISH

There are two major sources of data on English on the present project. The first is from language tests which were specially devised to answer questions about the children's competence to deal with Std 3 through the medium of English. Full details of this work can be found in another final report (i.e. English Language Skills Evaluation - (ELSE) Final Report). The second source of data is the disparity analysis which looked at MAPEP and New Day-by-Day in relation to Std 3 science texts. Full details of this work can also be found in another final project report (entitled Disparities between Std 2 and Std 3 demands). The purpose of the present description is to give the reader an immediate impression of the actual practice of teaching as it occurs day-to-day, and no final statements are made here. The reader is referred to these other final reports as well as to the Consolidated Main report for a detailed, integrated account of English in the curriculum.

The PEUP teachers principally use Macmillan's Primary English Project (MAPEP), although they have the option of using Day-by-Day as well. The MAPEP course consists of a kit with pupil's book, teacher's book, a set of wall charts, and later, supplementary readers and dictionaries. The course is more oriented towards oral work than reading, and the teachers seem happy to develop differentiated group activities off the wall charts and exercises in the Pupil's Book.

Picture 15: *Small group work with a MAPEP poster*

The focus on differentiation leads to the course not being used as it was originally intended to be. For example, it allows teachers to use an undue measure of repetition and drill if they are so inclined. For example, one Std 1 teacher, not yet fully inducted into PEUP method got her pupils to repeat They are playing with a ball five times. She taught pronoun substitution by getting the class to repeat She stands for a girl six times (with no comprehension).

However, there is considerable variation in the system. One Std 2 teacher gave a beautiful lesson, using a MAPEP poster that shows farm animals, house and farm birds, as well as wild animals. She only repeated her question once, using a very natural rhythm. She went through the vocabulary, soliciting contributions from the children. She then asked questions like: Which one is the fastest? How do these farm animals help us? Which animals help us with milk? (cow, goat, sheep). With the second group she actually told the children which animal can run the fastest, and which can jump the highest. Where children showed some hesitation, she prompted with a short Setswana question (e.g. Tse di jang nama = Which one eats meat).

A Std 3 teacher gave a lesson which tried to be a good compromise between the PEUP and the MAPEP course. The story was about Narcissus and how he met his fate. By this stage in the MAPEP course, the pupils are expected to use a small dictionary. Even though the children had learned how to do this (in other words the lesson was not concerned with teaching the use of a dictionary), the teacher made very heavy weather of the looking up of different words. The effect of this was to lose the thread of the story. The teacher also got the children to chorus answers at regular intervals. The words they looked up were naughty, punishment, and love(3). The teacher made language errors that would surely affect the children e.g. That one looks oneself in the mirror. At the end of the input, the pupils wrote their "newly" acquired vocabulary in their dictionaries, without any explanation, notes or examples. Their personal dictionaries were innapropriately named "Phoenics" books. Finally, the teacher used the multiple choice exercise designed for written comprehension as listening comprehension, and this the children found very hard to do.

Both MAPEP and Day-by-Day rely on their initial content material being close to the everyday life of the child. At times this does injustice to the richer experience that modern urban children have. Also, they do not teach the children to make the all-important transition between narrative and expository text.

The observations of English teaching in the DET school were very different from PEUP English, for two reasons. Firstly, they were not using a well-established, conventional scheme. So for example, a Std 2 teacher got children to bring pictures of kitchen furniture, and then laboriously taught them vocabulary from this. A Std 3 teacher who spoke

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3. Looking at the last word, there were two things of interest here. The sentence dictionary used did not help the children to discriminate between loving an ice-cream and loving a friend! Secondly, the teacher was not able to control the phonetic difference between loved and laughed which occurred close together in the story.

very good English, told the children a story in very natural intonation, but then drilled the children on sentence patterns.

However, the experience in English lower down in the school was very different. This was because the Std 1 children had just completed a year of experience on the IBM Writing to Read Program. This is a high technology approach developed in the United States of America for minority group mother tongue speakers of English. The net impact of the implementation of the programme at the school has been a very keen interest in English, and a very high standard of English. (In this report we do not make reference to the larger, structural issues affecting the implementation of such a program: these issues, which must be taken seriously in a developing, expanding educational systemic context, are addressed at length in the Inter-University Evaluation of the IBM Writing to Read Project (1988).)

One of the learning stations in the laboratory is for reading, and for this 54 titles are provided. Under the conditions of implementation, the original American titles are supplied, along with taped readings of the stories by American readers. The children love to listen to these stories, and despite the fact that the stories and accent are out of context, much genuine learning has taken place: the children are able to read from these books fluently, and there are real indications of comprehension as well. The recordings of the stories have also encouraged the children's oral fluency and confidence. We interviewed a few of the Std 1 children, and they were more articulate than the best of the Std 3 pupils. However, the Std 1 teacher was not capitalising on the rapid development, and she was teaching them according to some conception of what children in Std 1 ought to be able to do.

The Grade 2 teacher, on the other hand, was including as much English in her everyday activities as possible. Her English competence was much better than that of the Std 1 teacher, and she was able to do this very naturally. What was instituted in Grade 2 (but lost by Std 1) was the class library, constituted by books that individual children brought to class. The children were able to read after they had finished their other tasks. (I have argued for the centrality of the classroom library as an instrument of reading development in the English Language Skills Evaluation Report.) It seemed to us that advantage that the children had gained might be lost later as a result of the poor English proficiency of teachers accustomed to teaching English at a very low, structural level, not being used to using English for more general purposes(4).

(4.) Although our research at the DET school yielded very interesting observations, we do not go into in detail here about them, since it is unlikely that any more than a minute proportion of children will have the privilege of using the IBM system. Data on oral and written language is cited in our English Language Skills Evaluation Report, and the reader is referred to the DET Comparative Evaluation Project conducted by the HSRC (Kroes and Walker, 1988) which assessed this system against others.

Cars
A B
Going to
School

Picture 16: *The Grade 2 class library at the DET school*

The principal challenge for the child through the course of the whole primary phase is the transition from narrative to expository text. It seems to be beyond dispute that the "story grammar", a textual schema is readily and early learned. However, it is a great deal more difficult to learn the textual schema for expository text. For one thing, it is less natural; for another it is intrinsically less interesting to the child. Where the child comes across unfamilar material, he can either assimilate it to his existing knowledge structures, or accommodate it by constructing altered or new structures. The novelty of most expository information ensures that readers will have some difficulty with fitting it in with their existing knowledge structures.

Although real competence with expository text is a relatively late acquisition, it is worthwhile considering it as an endstate that the lower primary child is working towards. The adult or competent reader would extract specific (propositional) content from the text, and then through deletion and generalisation, would construct the gist or important content from the passage. The adult reader is much helped by an overview of the passage, or the topic sentence of the paragraph, but it seems that it takes children some time to be able to do this. The fact that the mature reader is much helped by first-sentence main idea statements indicates that early expository texts should be very carefully constructed, in order to train the child on the structures that can help him to comprehend.

However, as much as the child needs text schemas, he also needs content schemas. By this is meant that the writing of early texts should take into account the child's state of cognitive development, but especially his state of awareness of what will often be strange and unfamilar ideas. Research is needed about the child's current conceptions in order that we can work from these outwards.

This current research did not take into account children learning through the Bridge to English courses, which is the third major scheme

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the market. This course takes cognisance of across-the-curriculum learning, and attempts to meet the child at his specific skills level. The course also addresses the reading and writing skills that children will have attained for effective learning in English. Unfortunately there are not yet any children who have completed the Std 2 course so the Threshold Project has been unable to do any rigorous disparity analysis on the materials. (There is reason to believe, given the current time allocation for learning English in the lower primary, and given the teachers' pace of teaching, that the children would not be able to complete the courses as they are currently compiled.)

In summary then, we observed pupils who were learning English as the first official language, in other words, preparing for using English as the medium of instruction. In the PEUP schools, the MAPEP course is chiefly used. As with the mother tongue and Afrikaans, the teachers adapt the course to meet their needs for differentiated group teaching. There is variation in the quality of the teaching, and some of the teachers have weak personal English competence. In the DET school we observed the first generation of children to have learned with the aid of the IBM program - Writing to Read. While the effects of the system seemed to be considerable, it should provide a challenge to the teachers to keep up with the gains accrued. We have not observed any use of work that is adequate to the demands of the curriculum in terms of the content and skills required in the content subjects, or the reading skills required to deal with expository text in English. The Bridge to English courses seem to be promising in these last two respects.

4.4 MATHEMATICS

The Threshold Project planning specifically excluded the study of mathematics, because it was thought to be a specialised topic in its own right. However, a few specific comments in passing are offered here, to gain a more complete picture of the curriculum.

The most frequent use of learning aids appears in maths. For example, in one Grade 1 classroom the children had tins, batteries, bottle tops, paintbrush handles, and wooden blocks. These are generally waste materials, and things that can readily be collected. The children seem to enjoy using them very much.

A specifically new invention in primary mathematics is the Decimal Board, which was designed by Hans Bodenstein. This is a learning aid for use with the whole class, that costs less than Dienes Blocks, and yet gives the children concrete and perceptual aids to number conception. It may be used independently from, or concurrently with, regular syllabus classwork. The effectiveness of this innovation has yet to be evaluated (this is to be done, by the HSRC), but it has immediate face validity (in much the same way as Breakthrough to English has).

The use of differentiated groups in mathematics starts at the Grade 1 level in the PEUP. It is not clear that this is particularly necessary, since the syllabus is so narrow at this point (viz. the addition and subtraction of bonds of 10). The teachers seem to consistently underestimate the children's capacity. For example, one Grade 1 teacher gave children just five problems to complete in 50 minutes (and naturally the work expands to fill the time available!)(5)

In many cases the children start to count in English from Grade 2. From the earliest stages the teachers try to contextualise the problems. For example, one teacher showed the group concrete blocks and said that they were fat cakes that the children stole. However, the teachers feel a need to explain before they let the children demonstrate their competence. For example, one teacher gave the problem: 11 -   = 7. Many of the hands went up, and then down again when the teacher said "I must explain it first before you can do it."

Observation in the different schools lead us to the impression, which would have to be further substantiated, that teachers start to have trouble with explaining concepts from as early as Std 1. For example, the PEUP village teacher could not deal with the concept of simple fractions: She used an orange as a teaching aid, cut it in half, and in half again. She taught the children that if you cut a half you get a third. Even though we helped her over her difficulty, she still didn't get the idea clearly enough to help children conceptualise how to draw and colour fractions. There were many muddled drawings that day.

The Std 2 teacher in the same school gave a wonderful lesson on fractions, giving due emphasis to the fact that the parts that are divided should be equal in size. She used paper that the children could first fold, and then colour. She showed the children instances of non-fractions (non-equally folded paper), and she asked the children to decide what are true instances. However, the Std 3 mathematics teacher undid the benefits the children had enjoyed from their Std 2 teacher. She painstakingly taught them what they had very adequately learned in Std 2 i.e. reading a clock (always called a watch) and to this she added some errors. For example, she taught them to say things like It's 48 minutes past one.

It has been widely accepted that, if there is to be a gradual introduction of subjects being learned through the medium of English, that one of the candidates for early introduction would be mathematics. It is suggested here, that before policymakers act on the presupposition that a limited vocabulary equals conceptual ease, that research be conducted into the ability of teachers to introduce mathematical concepts in natural and accurate English. Another area of specific interest is the teacher's ability to explain what operations should be used in converting "real world" word problems into mathematical terms.

In summary then, the present research has not focussed on the specific challenges that mathematics poses for learning through the medium of English. However, in the course of more general observation (and referring to specific previous experience) we found that concrete aids are

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5. The low teacher expectations have been specifically experienced with regard to mathematics on the Computer Assisted Arithmetic Research Project. Here in-school work over a period of months with a Std 2 teacher enabled her to change the pace of her pupils' output from about eight to sixty problems within an hour of group work. This altered pace obviously required enhanced group management and child self-management skills (Macdonald, 1985).

found more commonly in maths than in other subjects; that teachers may have conceptual problems with maths operations and the explanation of concepts in English. Reference is also made to the importance of the teacher's accurate use of language in teaching mathematics concepts.

4.5 OTHER SUBJECTS

There are a number of subjects that comprise the primary curriculum. For example, there is physical education and handwriting, neither of which we would consider as having a primary bearing on our problem area, that is, preparing the children for the medium of instruction.

However, we should like to mention two subjects in particular. Firstly, there is religious instruction that is probably the best taught subject in the junior primary. We say this on the basis of the confidence that the teachers bring to the subject, and the creativity that is applied to the subject in terms of story writing and dramatisation activities. Probably the least attractive aspect from the observer's viewpoint is the explict drawing of morals that prevails. For example, in the story of Moses' flight from Egypt, the Standard 1 teacher went to some length to impress upon the children that God is the Father of us all, and that He will protect us from our enemies if we ask Him. (This is followed by numerous examples.) With the story of Zaccheus, the moral is drawn with another anecdote that "we must try": the pencil is put on the top of the chalkboard and the child is asked to get it down. She has to fetch a chair from about a metre away to achieve her aim. This was a fatuous example, since the child's problem solving abilities were more than sufficient to the situation.

This is an example of a theme which we inferred from "our" perspective, and that is of consistently underestimating what the children are perfectly capable of doing.

We should also like to make specific mention of environmental studies, since it is the subject which is the precursor to the formal study of history, geography and general science. In the PEUP environmental studies is started from Grade 1, but no resources are supplied for the child. In Grade 1, the four seasons are the general themes. In Grade 2, themes include animals, plants, water, air, wind, sky, sun and weather.

From Std 1 the teacher is supplied with an elementary general science book, which constitutes the curriculum. The shortcoming of this is that simple geography and history themes are ignored for two years: Stds 1 and 2.

not into
deliver us
the kingdom,
and the glory, for
ever, Amen.
rots

Picture 17: *Solving the religious problem*

It is in environmental studies that we saw one of the few problem-oriented lessons encountered during this research. The teacher asked the children (Std 1) to go and pull out a weed from the far corner of the school grounds. She sat outside and informally discussed the weeds with the children. Unlike the usual content subject lesson, the teacher asked questions which challenged the background knowledge and the reasoning skills of the children. The following is an abbreviated summary of the lesson:

> Is it alive? No, it's not alive because you picked it. It's not going to grow anymore. It is not breathing or eating. Look at the four parts ... What is the function of the roots? They support the plant so that they don't fall. It drinks food from underneath. If its roots are dead, will it grow? What is the function of the stem? It carries the food from the roots to the leaves. What helps to make the plant green? Have you ever seen the grass as green as this (plant) in winter? The stems hold the leaves towards the sun. Where do the leaves grow? Why are the leaves not happy in winter? Because the sun is not so hot - its more cold. What holds the plant in the

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> soil? (Asks the functions again.) How does the plant grow? Through the leaves. Asks the children to draw a tree and label the parts; and then write a story about the plant.

This teacher gave a great deal of information very rapidly. When we afterwards looked at her handbook, we saw that there were two concepts which she didn't teach, viz. simple vs non-simple plants and tap roots vs bushy roots. However, if the children know as much as this in Std 1, they will have no difficulty dealing with the section on plant structure and function in the Std 3 syllabus.

In the DET syllabus, environmental studies begins at Std 1, and the teacher is expected to develop her own resources for two years. By and large the course is very poorly taught, with the children having very thin content notes by the end of each year, perhaps as few as a dozen pages of unconnected text.

Although the teaching of primary science or environmental studies is usually looked upon with some trepidation, its difficulties cannot simply be obviated, since they are key problems which the pupils experience. One of the things that the teachers fail to communicate, since they lack these themselves, are attitudes which are of value when learning science. These include:

* curiosity: questioning, wanting to know
* respect for evidence: open-mindedness, perserverance
* critical reflection: reconsideration of methods and ideas
* flexibility: recognition that ideas are tentative
* sensitivity to living things and the environment

Difficulties with these scientific attitudes include the fact that children are not invited to be questioning after the grades classes; the notion of open-mindedness is foreign insofar as science is regarded as a closed system; it is commonly thought that there is only one method and set of ideas in science; because science is based on authority, there can be no tentativeness in ideas, rather right and wrong ideas.

With the pre-adolescent child, it is commonly thought that a set of simple process skills can be developed. These would include:

* observation: grouping, interpreting; similarities, differences
* raising questions: asking all kinds of questions
* hypothesising: trying to apply concepts and ideas
* devising investigations: working out ways to solve problems
* communicating: discussing observations, making simple records and tabulations of these.

By and large the children we observed simply failed to make observations in the strong sense posited above - perhaps this was because there is generally nothing to observe, due to the commonly prevailing absence of teaching aids. They did not raise questions - this would have seemed inappropriate (cf. the following chapter, and also discussion in the Reasoning Skills report). Neither the teacher nor the children made hypotheses nor did they devise investigations - once again, there is the conspicuous absence of authentic material. Finally, the notion of communicating seemed to be entirely foreign, as described here. The nature of the classroom communication will be further discussed in the section below on groupwork.

Although we do not report on the teaching of science and mathematics in any detail, what we have seen gives us great cause for concern, for these two subjects are one of the two main foci of learning, the other being the languages. The teachers are unsophisticated in the methods of early science teaching, specifically with regard to the abundance of material and informal learning situations which should be set up. What might be of help is a structured set of problem solving activities that they should tackle while covering their themes. The supplying of materials to co-ordinate with these activities would require considerable development and co-ordination. But unless these are supplied, the teachers will in all likelihood continue to teach rather attenuated contents-based courses.

4.6 THE MANAGEMENT OF GROUPWORK

One of the most conspicuous characteristics of the PEUP is the change of the classroom from the conventional class to a group-based organisation. This is in many respects a radical move, although it maintains the communicational status quo in certain important ways. What follows is a critical discussion, rather than a description. Much of what is said is based on a model designed by Nel in 1985 (for the Computer Assisted Arithmetic Research Project) for *collaborative* rather than *differentiated* groupwork in the black primary (mathematics) classroom.

The usual class operates as a large, almost impersonal unit doing the same task with explicit discipline. Small work groups imply that the classroom unit is broken into smaller units, each following independent activities. The reason for this is that two of the most persistent and powerful needs are fulfilled:

* the need for social acceptance
* the need for communication

The placing of isolates in small groups of their choice increases their chance of acceptance as there is more communication and co-operation in a small group.

Adequate communication which also becomes possible in a small group overcomes barriers as it is more direct and intimate. Anxieties and a fear of mistakes are overcome by co-operation and a supportive group.

Small groupwork fulfills the most characteristic features of childhood: to be active physically, intellectually and socially, instead of being a passive recipient in a large class.

The only groups that are socially based in the PEUP are those initially constituted for the teaching of Breakthrough. However, very soon, the teacher starts to build new groups on the basis of the progress that children make in Breakthrough Stage 1. There is no doubt that social relationships form within the ability groups, and in the long term this would mean that the children do not readily interact across groups. This was our general impression, although we did see one exception to this, in a class where a Group 3 child repeatedly asked a brighter child for the correct spelling of particular words. This whole area would provide some interesting ground for sociometric analysis.

Nel suggests that small groups be used as they allow every pupil to practice intensively with the help of a pupil leader. You cannot achieve this intense practice and activity in the usual formal teacher led lesson. The children will be active in mind, in body, and in communication with each other and with their leader.

The significant aspect of the PEUP groups is that they do not have a leader who is in any general way responsible for the learning in their group. To develop such leaders takes considerable effort and judgement.

Nel suggests that for dividing a large class, perhaps seven groups of eight children may be an effective size. The leaders can be chosen from those children who are competent in the topic; however, one should consider choosing leaders who are not the best scorers on a topic, but would make good leaders because they co-operate with other pupils and are warm and helpful. These characteristics reduce anxiety amongst the less able pupils. At this point we refer back to the section in chapter 3 on affect, where we say that there are aspects which need research; here we would add that we don't know whether warm and helpful children would necessarily be accepted as group leaders. The PEUP groups are usually about 16-23 in size, and function not as intimate child-based learning units, but rather as managable units for the teacher to teach. The teacher can give more children closer attention when she is only attending to 20 rather than 60: the benefits of this are obvious, insofar as the whole range of children are actively involved when they are part of the teaching group. Children cannot "duck", as one teacher put it.

In terms of specific subjects, Nel suggests that the leaders must be briefed about the possible problems and mistakes they could encounter in a topic. They are shown how to guide and help without providing the answers only. The accent is on understanding a concept rather than mechanical procedures.

To develop this aspect of the model, the teacher must have sufficient expertise to not only explain a concept, but to ensure that children are themselves good at explaining. It is not absolutely clear that we can take this injunction literally, since it is only rarely that teachers will admit at all that children are able to help other children, rather than simply supplying them with the answers. We found this attitude amongst the DET, PEUP and convent teachers. It would probably take rare talent on the part of a teacher to facilitate the development of pupil helper-teachers.

It is readily acknowledged by Nel that such group-based work will entail briefing of pupil leaders during the afternoons before the actual work sessions are due to take place. The kind of guidance that she has in mind is based on the completion of workcards. These would be familar enough to the PEUP teacher, but such resources for regular use would place a considerable strain on the workload of the teacher: it is one of the recommendations of this report that a great deal more assistance be offered the teacher in the area of materials development.

The group leader would have the master card which would be a very structured model answer. (It is important that this model is not seen as the only way of answering.) It would be difficult for the children not to consider the model answer as the only answer, given what we have seen.

The final screw in a very tight system would be the keeping of a record of the work done in a group. The group leader could also do this, and systematically record the work done by the childen. This would considerably reduce the marking load on the teacher, but would require giving the children a degree of responsibility that they have not hitherto enjoyed.

This comparison of a radical group-based model to the PEUP model is intended to highlight what is currently being attempted, and what is being achieved. It is very clearly intended that the groups be ability-based, and that they do differentiated work. However, we have inferred that many of the aspects of collaborative groupwork might not develop without specific attention e.g. autonomous problem solving.

At this point we can usefully mention some specific effects of the current groupwork orientation in the PEUP:

(a) The previously streamed classes have been replaced by mixed ability classes which are grouped according to ability once again. It is not clear that the children that are supposed to have suffered under streaming - i.e. the slow children - are actually better off (cf. the personal input of teachers reported later in the section).

(b) It is not clear whether teachers are always able to make the fine grained differentation which the system expects, despite some very valiant attempts. Sometimes the differentation is too coarse, in the sense that the teacher overestimates what Group 1 can do, and underestimates what Group 3 can do. We mentioned earlier, that early and radical differentiation can inhibit base level competences that all children will need to succesfully make the transition to higher primary, for example, maths skills, and reading skills.

(c) In practice, the organisation tends to favour Group 1. Often Group 3 children would not have time to do their classwork exercises, but only their occupational tasks. The explanation offered that these children can do their task the next day merely confirms the impression that the children are placed at a disadvantage. They would surely benefit by the immediate consolidation of the work that they have just dealt with.

(d) There is a pressure on the teachers to keep the groups occupied. When children have been occupied with an activity too long, they become bored and irritable. The older children, if properly trained, will take out their language books. Supplementary materials for fast workers would seem to be a good idea, but as Galton (1987) discovered, children at a higher level do not necessarily want to do more of the same kind of work.

(e) Occupational tasks are clearly only used regularly in the grades classrooms, if the tattiness and ready access of these cards is a criterion. Although these exercises would seem to be boring and repetitive, it has been found by Bennett et al (1984) that this does not necessarily affect the children's motivation.

When we saw a parody of an "old" and a "new" school being presented by children at the PEUP year-end function, we had a clear representation of what the teachers see as the critical aspects of the new method. In the new method, the children no longer drill, nor are they harshly treated by a disciplinarian teacher. Rather, the children are kept quietly busy on occupational tasks, and the teacher is to be regarded as a mother figure. The significance of the change in method should not be underestimated. Drilling and chorusing have largely disappeared (only to have reappeared again later in the higher classes), and there is now a much greater chance of the child being engaged in meaningful learning.

There is a fierce insistence that the teacher should be like a mother, and there is public admission that this image has forced the male teachers to the higher standards. In order to bring home a very difficult point, I suggested at the same year-end function that the father also has a role in the child's development. Perhaps it is a function of the previously central role of harsh discipline, that the notion of child-centredness still is centrally associated with motherliness. It will still be another large step to take before there is a refocus on task-centredness, which is at the heart of considering the learning needs of the child.

The presence of the teacher, wherever she is, means that she is in complete control: for example, when she is doing a lesson introduction, working with a teaching group, or managing general features of the class. The children do not have any autonomy in deciding on tasks. However, they are expected to responsibly get on with their own work while the teacher is busy elswhere. This is a great improvement over the situation where the teacher polices the class as a whole, not expecting the class to get on unless they have explicit monitoring.

One of the limitations of the concept of "motherliness" is that it is also still primarily limited to the needs of the very young child, one who has specific social and attentional needs. For example, while it is appropriate for the teacher to call small children to sit at her feet in the teaching corner (which in any event stretches right across the classroom), the photograph at the end of Chapter Two shows clearly that the nett impression of doing the same with Std 3 children is not one of intimacy. The children are clearly akward about being "babied", and slightly embarrassed about their role.

Their usual role is not what was presented to us for observation. We discovered this when we saw that the children did not readily fall into groupwork in Std 3. The disuse of this practice is readily understandable. Because of the language problem, the children cannot readily contribute to the lesson, and the teachers, on their part, expect very little from the pupils in content subjects in English. The teachers by and large fall back on their much-maligned Rote Rhythm method (cf. Macdonald 1988: Threshold Project Interim Report).

The appropriate manifestation of child-centred groupwork at this level would be the more radical version of groupwork outlined earlier in this section, for the purposes of doing projects. To do this, the children will need considerable physical resources, the ability to negotiate complex meaning in English, and finally the orientation towards learning as a problem-solving activity. Any of these these three requirements is a tall order in the present circumstances. For example, it was the experience of the ORACLE project (Galton, 1987) that collaborative groupwork is most effectively facilitated with the use of practical materials; reading and writing assignments leads to more independent work. What would be reasonable to expect must still be negotiated on each level - materials, language abilities, and learning styles.

We asked teachers at the lower primary level what they thought about the effects of groupwork: they virtually all expressed concern about the children in the slowest group. They felt that these children were not getting specific benefits from differentiated groupwork. They said that they did not have sufficient time for these children, and since so many expressed the same attitude, we tried to get to the heart of their reservation. The experienced teacher agreed that the brighter children were doing very much better than their bright children eight to ten years ago. And they admitted that their slowest children were not in fact doing any worse. What seems to be the heart of the matter is that the range of abilities that is "revealed" by the new methods leads to a sense of discomfort - perhaps the range is uncomfortably wide: too wide for the demands of class management, and too wide for culturally expected notion of equality. However, given the fact that no real structure exists for children with remedial or learning difficulties, it must be the case that there are many of these children in the average classroom, along with genuinely slow learners. It would be very difficult for the teacher to give either of these subgroups the attention they deserve.

It is suggested that the PEUP consider some alternatives. They could examine the affect of ability grouping on the child's self-image: however, it may be that there are no specific effects in what appears to be a climate of explicit labelling and expectations. On the other hand, care should be taken before differentiated groups are dismantled - it may be that these give significant impetus to the teacher's willingness to consider groupwork in the first place. Secondly, we have mentioned that the teacher needs assistance with the development of materials. Thirdly, we have referred to the fact, that unless the competence of pupils is raised from an early stage on, they will no longer be able to continue to make a meaningful imput to their own learning once the content of the curriculum becomes more structured. The only suggestion we have in this regard is that there should be a major drive towards the development of more problem-solving type materials, as well as other learning resources. It is clearly understood that the use of such materials would require a major inservice education drive of the same order and significance that produced the major changes already experienced.

To summarise this section then, we have seen a marked change from the conventional class (such as a typical DET class) to the PEUP class. The introduction of differentiated groupwork in Bophuthatswana has led to physical and organisational changes described in the course of this report. It is important to make a distinction between what occurs, that is, parallel groupwork, and the more radical form of groupwork, that is, collaborative groupwork. In the latter, smaller groups, the task group leaders are given the authority for learning to occur. The chances of making more changes within the current dispensation towards the direc-

tion of collaborative groupwork are seen as slim. The reason for this is that in the present structure the teacher has changed the nature but not the locus of authority in the class, although there is the significant introduction of occupational tasks. Child-centredness is associated with the nature of the discipline (i.e. "treat children as individuals with potential") rather than with the nature of the learning task for the child. A criticism is levelled at the PEUP for not cultivating a developmental notion of child-centredness, a notion that would meet the growing needs of the child. However, very significant problems (associated with language competence and the availability of resources) are seen as being associated with the implementation of child-centred project work at the higher primary level. One suggestion is that materials accompanied by extensive inservice training should be introduced from an early stage in the grades classes, a wholly new initiative that would encourage a further reorientation in patterns of teaching and learning.

4.7 PHYSICAL CONDITIONS AND RESOURCES

Before we look at the conditions in the PEUP, it would be useful to make mention of conditions in the DET and convent schools. In the DET school, in a well-established township, we found a large school, with 20 classrooms, which has been developed over the course of twenty years. It now has an extra air of sophistication with the addition of the IBM Writing to Read laboratory (more than a double classroom in size), as well as a Career Education block. The grounds are not well-developed, and the pupils play netball and have drum majorette practices on a dusty field. There are still large rocks in the grounds which would need to be moved.

The DET school operates under the conditions that a set number of textbooks and exercise books are supplied to the children, so that, in theory, every child should be adequately supplied. In practice, the schools ask the parents to supplement the materials.

The convent school was established some thirty years ago, and has the means to control the numbers of children in the school. Hence it does not have the problem of having to find additional ground or classrooms. The school comprises one class per standard, and the classes are relatively big, some 35-40 children. The children pay monthly school fees (which are one-quarter to one-third of the cost of other private schools), as well as a flat yearly fee for books, which includes the use of the textbooks and learning materials which are controlled by the school. Over the years the school has build up a large stock of supplementary materials, for language as well as content subjects. The school keeps a surplus in its book fund, in order to service a major syllabus change with the consequent change of materials. The impression is gained of a very careful stewardship of resources.

To turn now to the principal focus of attention. The PEUP is an integrated upgrading project: in other words, the momentum for change is carried at all levels - for the upgrading of physical resources as well as of teaching methods.

The first aspect of interest is that the project is intended to work with classes of 50 children, and not more. (Indeed in the early stages this was a requirement for a school joining the project.) The trapezoid tables that were introduced with moulded plastic chairs can only accommodate fifty children within the conventional class space. So, if there are more children, they are accommodated on different furniture such as old-fashioned desks, as well as benches.

Picture 18: *Using both trapezoid tables and benches*

In many cases, there are not sufficient classrooms, nor is there sufficient furniture. The extra children (their numbers increase every year) are squashed into existing space, or schools are forced to resort to using other buildings, such as church vestries and garages. The worst example of pressure that we saw was 120 Std 4 children crowded into one classroom. Other children at a major disadvantage were children squashed into rooms with inadequate ventilation and natural lighting (electricity is naturally only a privilege, see the photograph overleaf.)

The schools that are best placed to make an individual response to pressure are the semi-independent Catholic schools, that are not dependent on either the local tribal authority or the education department to build new classrooms. One of the project schools managed to build itself five new classrooms by raising different sponsorships. The community schools are required to make a rand for rand contribution for new classrooms, but their offerings may not always be honoured. The Departmental schools wait on official decisions as to when to build new schools, as the number of classrooms in a school is not supposed to exceed ten. It

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seems that a number of schools would have to experience pressure for a number of years before a new school would be built.

Picture 19: *Making the best of a badly ventilated classroom with no desks*

A second aspect of specific interest is the teacher's development of resources for her classroom. It is in the grades classrooms that the best visual aids are to be found, carefully designed, and regularly replaced. The teacher is at an advantage here, insofar as the visual aids can be based on general themes, whereas the higher primary teacher is bound to illustrate aspects of the prescribed curriculum. The photographs below illustrate the typical difference between a Grade 1 and Std 3 classroom in this respect.

A third aspect of interest is the required resources for a classroom. It seems that the resources are most closely specificed for the grades classes, and here the teacher is expected to have resources for drawing and painting, as well as educational games and activities. All of these resources need replenishing from time to time, and it seems that this creates some difficulties. In all the classes the children are expected to supplement the exercise books supplied by the department. This may make considerable demands on parents; for example, the Grade 2 children are expected to have a total of 16 books. While some of these books do not get filled during the course of the year, and there is a consequent waste of paper, others get filled before the teacher expects, and the child cannot get on until his parents have replaced the particular book.

In most cases the textbooks are not supplied by the department, and so these resources are at a premium. It has been noted above that teachers are slowed up when their children cannot simply work their way through textbook exercises. However, it is also often necessary for the child to have a book in order to make complete sense of a lesson; otherwise the teacher is forced to work from handmade charts.

A fourth aspect of concern to the teachers is their pay and employment conditions. Teachers are very aware that they would get paid better in the Department of Education and Training, and discrepancies already existing will be exacerbated by the next round of civil service pay rises in the Republic. Teachers would also be inclined to change their jobs in order to qualify for the housing subsidy available in the Republic. Since this study was conducted parity has been restored with respect to teachers' salaries in both departments.

A fifth, visible aspect of interest is the absence of electricity, which may not cause any specific harm, but also the absence of running water and adequate sanitation. One of the schools has no running water, and so the children get their drinking water from the community tap. They fetch water to irrigate the school garden from a nearby dam, into which they are constantly in danger of falling. The dam water is contaminated.

Picture 20: *Children fetching water from the village dam*

The most basic cause for concern is the absence of acceptable toilets. In one school, it would be difficult to build new pit toilets, as there are so many big rocks in the ground. In another school, the old toilets form part of the township system, and they often give difficulty, because of the frequent flushing of the toilets and the volume and pressure of the water required. The works department has been called in, but little has been done - apparently over the course of five years. In the meanwhile, new toilets have been built, but they haven't been connected yet. One of them serves as a handy venue for the tuckshop. In the meantime, the children have to use the piece of open veld that is next to the school (but within the bounds of the township) for their toilets. Some of the children have dug little personal holes to which they return; according to the children this has been happening on and off for the last four or five years - it constitutes a serious threat to community health. Apparently a number of township schools have been affected in the same way.

Picture 21: *Uncompleted toilets doubling as a venue for the tuckshop*

The sixth and final aspect to be mentioned is the absence of transport facilities both for the organiser, who is essentially a fieldworker, and the circuit team, who are forced to use private transport for panel evaluation visits. I mentioned at the beginning of this report (Chapter One) that at the heart of PEUP innovation lies the notion of continuous upgrading, upgrading that furthermore takes place in context. That means that the organiser (education officer) and her circuit team *simply have to be mobile.* Yet these key people may remain bureaucratically immobilised for years. And it seems that the system is not sufficiently flexible to accommodate the practice of reimbursement of expenses incurred for official business. The fifth and sixth aspects have been of continuing concern since the beginnings of educational innovations in Bophuthatswana (Report of the National Education Commission, 1978)

The net impression of the six aspects that have been touched on is that the system is under great pressure, and is indeed creaking in several places. The aspects that seem to us to be very important are that whatever resources are indeed available should be efficiently and equitably distributed, and that whatever has been established should be enabled to continue. This seems to be a precondition for maintaining morale and a sense of control and progress.

CHAPTER FIVE

THE TEACHER AND THE CHILD

5.1 THE TEACHER AND HER VALUES

In this section we look at aspects of the teacher as a professional, at aspects dealing with self-image as a professional, at aspects that should help us to determine the parameters of possible change. The data comes principally from interviews, but what the teacher said was balanced against what she actually did in the classroom. In other words, there was an assessment of dissonance between what the teacher said and what she did, as well as a more subtle phenomenon of false consciousness, when the teacher consciously constructs a set of values that seem to be at odds with the system one construes as operative.

The topics that will be dealt with concern the personal motivations of the teacher, her relationship and standing with others, and her values concerning critical aspects of the learning process - the following order will be observed:

- motivations for becoming a teacher
- the financial rewards of being a teacher
- the most rewarding aspect of being a teacher
- the teacher's status in the community
- the relationship with parents
- the relationship with the principal
- attitudes towards literacy
- attitudes towards discipline

When we asked teachers why it was that they had become teachers, some of them smiled wryly: it was because they liked children, they said, a little impatiently. Some of the teachers described how they had gone out of their way to go to training college, after doing an unsatisfactory unskilled job, like being a cashier. The grades teachers expressed a stronger sense of vocation than did the teachers of higher classes; this impression was confirmed by the fact that they were more likely to make additional commitments at the school.

All the black teachers we worked with, with the exception of one, had done Form III (tenth grade) and a PTC (two-year teaching certificate). They had later completed matriculation as private candidates: this is desired by their departments and makes a difference to their salaries. One teacher, who was expecting to be put into the Middle Schools any day, had a matriculation certificate followed by a three year diploma. There is still a strong tendency for the education departments to regard the lower primary as the place for less well-trained teachers. There are no graduates in the PEUP (Christel Bodenstein, pers. comm.), but this is not true of the DET who are now requiring new principals to be graduates.(1) Concerning the remuneration the teachers get, as we expected, all of them felt that they were being underpaid. The Bophuthatswana teachers also all mentioned that they were being more poorly paid than their peers in "Central" (i.e. the Republic of South Africa). However, as we mentioned in the previous chapter, there would now seem to be parity between teachers' salaries in the two systems. The teachers who were the most vocal about being undercompensated were the grades teachers, who emphasised that they had the most important job in the primary school, since it was they who were to enliterate and ennumerate the children. The most vocationally oriented teachers said that they had known before they went to college that they would never get rich teaching, but that they would have sufficient to live on. One teacher expressed a concern that a teacher should earn enough to be a good role model for the pupils, for example, with regard to the food that she eats.

Looking at the intrinsic rewards of the profession, teachers generally named the subjects that they preferred teaching. Although these were generally subjects that they seemed confident and competent at, occasionally teachers named subjects with which they manifestly had difficulties. One or two teachers named extra-mural activities, such as music or drum majorettes as their most rewarding activities - and it was particularly odd to hear this from a grades teacher, who had stressed the importance of enliteration. The convent teachers gave slightly different answers - although they mentioned aspects such as reading, that they found most satisfying, they also mentioned the emotional rewards of being with the children.

It seems that teaching has dropped in status in the last generation, in the black community. Teachers who have taught for more than twenty years commented that they were less "special" than they had been. A generation ago, a teacher was someone that people "took chickens to", and now he is just the same as everyone else. This drop in status may be a reflection of a number of factors; firstly, schooling is much more common than it was, especially in the days of mission schools. One mature head of department (vice-principal or HOD) related how respected her father had been as a teacher who only had Std 3; she maintained that this Std 3, which he had gotten in a missionary school was rather better than a current Std 6.

However, at the time that the sytem has undergone its most rapid growth, its management has largely been taken over by the state. The teachers who have been the products of "Bantu Education", have largely lost the respect of the community. The black community is fast becoming aware of how quickly the demands are increasing - now, no longer, can a matriculation certificate command a good job.

Perhaps, also, the changing relationship between young and old (which we discuss in the next section), has something to do with the diminishing status of the teacher. However, the teachers agreed that they get much more respect from their pupils than the secondary school teachers do.

(1.) Although it would seem logical to be upgrading the profession, there is a hiatus created with highly experienced Heads of Department having to work under much younger and more inexperienced graduates. This situation will need forbearance on both sides.

We were also concerned to find out about the relationship between the teachers and the parents, for in the PEUP, parents are taken to be an integral part in the upgrading of education. In the initial stages of the PEUP, the parents were called upon to raise money for the upgrading of classrooms, and they readily responded to this call. (In Venda however, the PEUP is finding that they are falling between the two stools - the tribal authority has a sometimes indeterminate role in mediating between the school and the community. This means that sometimes the community fails to meet the needs of the school, even where they are urgent, practical needs.)

But the significance of the relationship with the parents goes a lot deeper - parents should be co-mediators in the education of their children. And yet the parents seem to display an interest in education that is correlative with their own background.(2) In the village school, parents were never to be seen, although traditionally-dressed grandmothers would come on respectful errands to the principal. The teachers, themselves parents, would sometimes be too tired to pay the attention they said they desired, to their own children's work.

The PEUP teachers all said that they had contact with the parents, but when questioned closely, they said they only really saw a handful of parents per term. The DET school writes letters to their parents when they have problems with a child, and the principal explained to us that they expected the full co-operation of the parents (especially when they had taught them 20 years ago themselves!) However, when schools follow up children who are are having difficulties, they can come upon very difficult situations where children may learn, or have to adapt to, debauched adult township lifestyles.

Craig (1985 p.188) quotes a principal who felt that the problem goes deeper than simply poorly educated parents failing to give support. This primary school principal felt that both parents and teachers need training in how to prepare children for school, and also how to teach children when they are at school

> Principal: You see, because the parents and the teacher have grown up like these children, they are themselves in need of training - it is a recurring decimal, it is carrying on and on, generation after generation. The next parents and teachers are going to be worse.
>
> Craig: So the parents and teachers are themselves the products of a poor education?
>
> Principal: Yes, they are like zombies really, it is just like a parent saying, you come you go, I mean they are, they have some intelligence, but they are not exposed to many things -

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(2.) The parents of the village school were largely labourers or unemployed. The parents of the urban PEUP school were in many cases skilled or clerical folk, and much better placed than the urban DET school, who were overwhelmingly classified (in the intake register) as labourers. Those parents who sent their children to the convent had the most varied occupations: e.g. toolmaker, attorney, fitter and turner, credit controller, salesman, receptionist, postman, and many others.

> they don't expose themselves to many things. So now the problem is going to go on and on for quite a number of years.

The extract above contains harsh words: words that could only legitimately be directed by someone at her own people. And yet we see a kernel of truth in the attitude towards literacy, which we will be discussing below.

The outward attitude of teachers towards their principal is one of deep respect. They all stoutly maintained that their principal gives them support where necessary, and visits their classroom every term. And yet one teacher, when she had been thoroughly reassured that anonymity would be assured, spoke very bitterly about favouritism on the part of the principal. She felt that when one taught a B stream class, and specialised in music, one would never be considered for merit awards, and in essence, remained unaffirmed. And yet in any innovation, the principal is one of the cornerstones of successful implementation. In the system in which the principal is perhaps less qualified and perhaps less able than the teacher, it is very important that she be kept fully informed, and in fact, competent in any new method, since she may otherwise fail to support, or even undermine the innovation. She would do this in order to keep the balance of power in her school: she is the most senior and therefore her wisdom is to be respected - not to be bypassed. Otherwise the balance of power may shift towards anarchy in the school. Beeby (1986) has outlined the specific implications of an "authoritative" system for in-service education, and clearly recognises the need for the system of respect to be supported and not undermined.

The hierarchic structure that exists in the black schools is in stark contrast with the highly democratic structure that exists in the Dominican convent. The Dominican order, a teaching order, has as its philosophy, that each teacher has God-given talents, and that these should be allowed to develop. In other words, they will expect each classroom to be very different, a reflection of the particular strengths of the teacher. This means that there is only the loosest collaboration on matters of common issue, for example, the choosing of the Afrikaans scheme that will be introduced. The teachers expressed the view, that especially when they came straight from a state education system, this freedom seemed at first to be frightening. However, afterwards the teachers felt that they had developed personally as teachers, and because such trust had been placed in them, they had responded with a very high degree of commitment to their jobs. The teachers said that there was a much better job attitude than was in the case of the state education departments they had had experience with.

To return to our prime focus: the traditional association of age with wisdom and authority is being rapidly undermined by the rate of educational development of younger people. During the transitional phase, specific adjustments will have to be made to individual situations. For example, we were moved by the acceptance one mature Head of Department showed at the prospect of having to work under a graduate twenty years her junior.

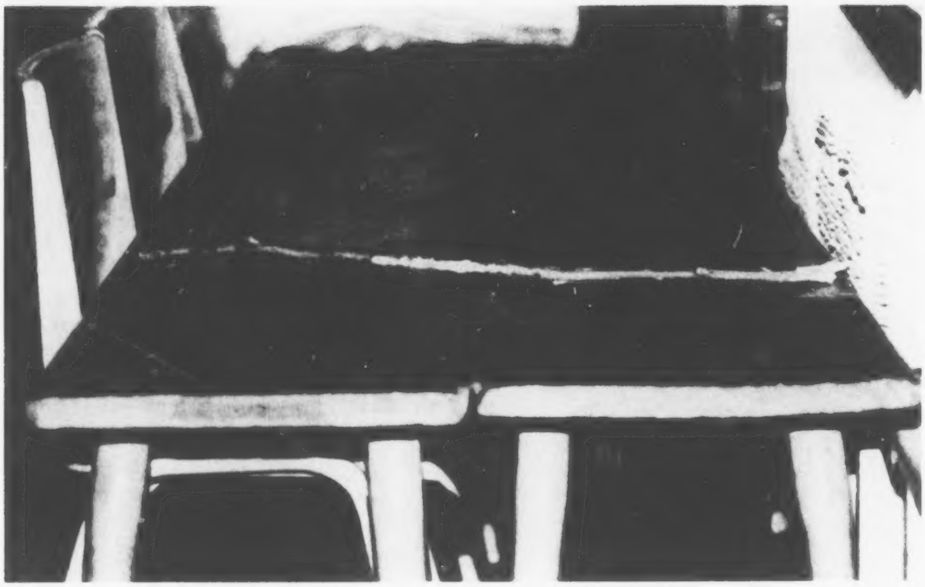
To turn now to a disconcerting observation which continues to be substantiated: incidental observation in the urban homes of many educated people, including graduates, has shown the virtual absence of any books apart from those required for a course of formal study. If books are to become a natural part of the home, and integrated into accepted social forms, then they would have to be appropriate to the needs of the people. There is data in the early literacy research (Ollila, 1981) in the West and Japan which indicates that children's books are commonplace in the home from as early as the first year of life. But because of the ironies that apartheid has introduced into the situation, children's books in the African languages are to all intents and purposes non-existent. Literate parents (including teachers) cannot read English books to their children since they (the children) would not understand them (the books). Children have to learn to read for themselves, and the advantages of preliteracy activities seem to be entirely foregone. But once children *have* learned to read, they do not generally read books at home. Teachers seemed surprised when we asked if they read to their children. Fatigue was offered as a reason why they don't. We asked teachers how many books they have at home: it turned out to be not more than a handful. The brightest pupils, when asked the same question, said that they had one or two titles, and the one they could remember was "Cinderella". When I gave two Std 3 children two simple story books to read for pleasure, their mother instructed them to "study" these books, since that would help them deal with the demands of Std 3 (sic).

Libraries in the schools are by and large a poorly controlled resource; and when we have given books to schools as presents, they tend to remain under the proud control of the principal, in her office. The library in the village school contained some outdated copies of Popagano, the journal of the Bophuthatswana Department of Education (cf. further remarks in Chapter 4).

Homes that do not contain books often do sport TV aerials on their roofs, even in rural Venda. It may be that the culture will go straight to being a visual culture without having gone the route of real or deep enliteration. And nobody has been able to suggest how one becomes competent to the demands of the information age, unless one has the means of access to the information in the first place.

When we talked to teachers about discipline, they always laughed, as if perhaps that was an embarrassing question. For them in English, "punishment" is synonymous with "corporal punishment". The official policy of the schools is that corporal punishment is forbidden in the lower primary, and thereafter, permitted in the presence of a senior teacher or principal and recorded in the log book. Nobody ever beat a child in the classes we were visiting, yet every day we have ever been visiting, there was visual and auditory evidence of beating elswhere in the school. Children in one school explained that they had been corporally punished ever since they were in Grade 1. The practice extends even down to the so-called "bridging" year.

One teacher explained that the parents expect the school to punish the pupils physically, otherwise they think it is soft and liberal: Whiting and Edwards (1988) corroborate this finding in a Kenyan context. Yet Durojaiye (1980) finds this reason totally unacceptable: it is of great concern to him as an African educational psychologist that the practice should be stopped as, according to him, it promotes anxiety and stress in the children which interferes with effective learning.



Picture 22: *A stick with which to beat the pre-school children with.*

It is hard to tell precisely what effect this punishment has on the psyche of the young child; they seem to be quite "philosophical" about it. Yet, according to the literature, they will not learn to internalise self-discipline, and will in turn treat other people in an authoritarian mode. And all this is in stark contrast to the stated aims of child-centred education.

It may be that the obverse of corporal punishment is also *externally generated* motivation. One of the most perplexing parts of our discussions with the teachers concerned motivation (cf. 3.4 above). When we asked the teachers how they generated positive affect, how they motivated the children, some replied that they gave the children more work to do. In trying to make sense of this, we interpreted it to be a message to the child that he is clever enough to do extra work. Yet that comes as a judgement that is external to the child. In contrast, in Dewey's (albeit) humanistic terms, the child would have an innate drive to mastery of his environment. The teacher would merely be there to help it find an appropriate object.

While we have been discussing the values of teachers as they were revealed to us, we have tried to bear in mind how these values would be woven into a pattern of indigenous education, a pattern that innovation would try to refine rather than redesign. After we have discussed issues pertaining to the child in the same light, we will have a clearer perception of the different threads.

5.2 THE CULTURAL ROLE OF THE CHILD

The initial focus of this study has been on the child in the classroom learning situation, and the final integration of our observations will

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have bearing on this situation. However, we can understand more clearly how the child functions as a learner if we examine his role in other situations. So, in this section we make some observations on the child in the classroom, then proceed to look at child-rearing patterns and their significance, an indigenous theory of childhood, the role of questions in adult-child communication, and cognitive development through peer relations. Finally, we will look at two cross-cultural educational studies which have introduced a new orientation into curriculum development. This will bring us to a position for suggesting areas for future research.

5.2.1 The child in the classroom

In talking about the child in the classroom, we have to say that we have found both consistent and adaptive responses. The aspects that the children remained stable in were their typical ways of initiating communication in the classroom, and their ways of showing that they were paying due respect and attention.

One of the characteristic patterns of interaction in the western primary classroom is the unsolicited contribution of the child, which may be pertinent or tangential to the ongoing discussion, and which the skilled teacher may be able to use to enrich the topic theme. Yet, this pattern is conspicuous by its absence from all the classrooms in the black schools that we observed. The child would, if called upon, offer some personal input, for example, in a lesson about Joseph, where the children were asked about what they dreamed about, but not otherwise.

The only other unsolicited comments the children would make were to do with the attention other children were paying to their tasks, and the young children would insist on getting their turns at answering. In one Grade Two class, children were always keen for turns; they flicked their fingers and said "Mme, ke nna" meaning literally, "Mother, it is I"; at other times individuals called out "It's long that you haven't called me", "After this one, its going to be myself". It seems that the cultural rule that the child and teacher are acting on is that the child will only speak when he is spoken to because his spontaneous contributions are not highly valued. However, preschool children who have been informally observed, do not seem to have learnt this yet, as they will initiate remarks and even interrupt conversations. One principal observed at the beginning of the school year, that the Grade 1's do not know how to behave, but they will soon learn.(3) At a school in Venda, small children came to watch us, and they greeted us verbally. The teacher then approached and reminded the children of their manners - they immediately sat on their haunches with knees open, and clapped their hands in front of their faces.

(3.) These early schoolgoers come spontaneously from behind their tables and cluster round visitors, wanting to touch and be touched. They may even want to be picked up or kissed. They will shout across the playground at the principal who will happily call jokes back. Our observations indicate a radical discontinuity between preschool and school behaviour.

To turn now to ways of showing due attention to adults. In one-to-one communication there seems to be an invariate pattern. The child will approach the teacher, and wait until she has turned to him. Then he will catch the teacher's eye, to make sure that they have connected, and then avert his subsequent gaze, to show respect. He will turn his body 45 degrees to the teacher's, and perhaps cup his hand over his mouth as he speaks - this has been interpreted for us as meaning - "forgive me if I make an error, for I cannot speak well". The child may fidget or sway as he speaks, denoting a level of nervousness. In the village school, a child may even stoop low on bent knees with one hand on the ground when he speaks to an adult. This shows deep respect, which is appreciated by the onlookers.

As a group, the children may be much less shy of adults. They make a lightning quick assessment of the status of researchers (even though our function is never explained), and that is, that they have no authority. When we have tried to run a long session with the children, they get rowdier and rowdier with merriment. Once the teacher came in to see if there wasn't a riot going on in her class - no, just research. In contrast, the appearance of the principal in a classroom results in one being able to hear a pin drop.

While they are teaching, teachers expect absolute attention from their class, and to all intents and purposes they appear to get it. Nevertheless, if a child is unable to answer a question, he will in many cases be accused of not listening.

We observed the adaptability and resilience of children through different management styles. In one school the children went from a typical PEUP Grade 2 class into the hands of a teacher new to the PEUP.(4) This teacher was not yet comfortable in the ways of differentiated group work, and furthermore the children were tightly squeezed onto Sunday School benches, with little room to breathe. They hardly said a word to each other as they completed their tasks. Where, we wondered, had the children's spirit gone? The next day we went to watch the previous crop of children (i.e. the present Std 2 children) who had passed through these two pairs of hands, and were now in a classroom that had all the PEUP accoutrements. They also had a teacher skilled in these methods. Here were children who communicated with each other, moved freely round the classroom, and seemed self-possessed and confident. It struck us then that the children were resilient, and furthermore, that they acted as they were expected to.

(4.) This particular teacher also seemed to be labouring under a load of linguistic baggage. She is a Zulu, who went to a Pedi teacher training college, speaks Shangaan to her husband, and has only recently started teaching in a Tswana school. Her Setswana showed a heavy influence of Sepedi.

Picture 23: *Self-possessed, confident children in Std 2*

This adaptiveness of children to their teachers - rather than the other way round - has also been noted in the ORACLE project in the United Kingdom. Galton (ibid) noted that when pupils changed teachers, 80% of them changed their behaviour to fit into the teaching style, and that none of the teachers changed their style over the same two year period. Significantly, when children changed to accommodate to a less effective teaching style, their achievement levels fell. What this indicates is that we have a great responsibility to pupils to use the most effective possible teaching style, since they will respond to teacher initiative. We do not yet know the limits the children will show to more and more progressive moves to developing their autonomy.

Teachers often complained to us that the pupils "dragged them" - in other words, the children keep them from getting through their programme of work (cf. section 3 and 5.1 above). Part of the vision of the PEUP is to develop children's self-sufficiency, and yet even on our contrastive analysis, we would have to say that in the grades, the children still need a great deal of monitoring, as their attention seems to stray easily. The urban PEUP school had children who were also a great deal more confident than the village children, who seemed rather more passive. They did not shine like their town compatriots, but this is partly because their parents do not rub them with Vaseline. The village children did not experience the same level of good health as the others did, and would come to school ill, as there was nobody to care for them at home. They also varied greatly in age per class - with perhaps six years separating the youngest and the oldest.

5.2.2 Child-rearing patterns and their significance

The significance of child-rearing patterns in Africa has been examined by Le Vine (1977, cf. also Whiting 1981). The following pattern of in-

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fant management has been seen to be a function of the high infant mortality rate and the consequent focus of attention on the material needs of the child.

a. The infant is on or near the caretaker's body at all times: this means that the child is protected from physical harm, for example, fire, water, snakes.
b. Crying is quickly attended to, and becomes rare, and this leads to the impression of quiescent contentment: this means that when the child cries continuously, this is likely evidence for physical causes, i.e. disease processes.
c. Feeding is a very frequent response to crying: this has the effect of preventing possible dehydration, where diarrhoea is a common precipitant of death.
d. There is little systematic concern over the infant's behavioural development and relatively little treatment of him as an emotionally responsive individual.

Le Vine points out that this pattern (a-c above) of child-rearing has become labelled as indulgent (cf. for example, Krige, 1950.) But this physical solicitousness does not occur with the emotional overtones westerners would associate with the term "indulgent". Characteristically in a western context, indulgent behaviours include smiling, eye contact, face-to-face smile elicitation, chatting, cooing and kissing.

This indulgence seems to be a pattern of behaviour which is sustained to some degree over time with African infants. We have noticed that white mothers seem to engage much more intimately with their toddlers, and perhaps because of the nature of the bond, become a great deal more irritable and short-tempered with their children. They seem to take what their children do as much more of a reflection of themselves, than do rather more detached and patient black mothers. Perhaps later, the respect for elders maintains the distance that has its early origins in the physically indulgent behaviour that Le Vine (ibid) describes. Certainly, black teachers are a great deal more detached about their children than the white teachers we have worked with: that is not to say that they do not care, or that they do not get as much job satisfaction - the affective bond is clearly of a different nature.

From the child's side, he never has the luxury of developing any personal antagonism towards his teachers. It is never the case that the child is moved to another class with a more "understanding", affectively consonant teacher. On the contrary, teachers may ocassionally take the same class up from Grade 1 to Std 4, something which would not be entertained in white education, where it is thought that children who do not fit in with the teacher would fail to thrive.

It is not clear what the cognitive and learning consequence of these differences of affect are - this is a matter for further research. The differences in affect may well be tied up with a distinctive motivational system, to which we referred in the previous section.

5.2.3 An indigenous theory of childhood

In this section a brief description of Craig's (1985) indigenous theory of childhood is given, as it relates to our current description. Craig "fashioned" (cf. Geertz, 1973) her theory from data from individual and group interviews with Zulu mothers as part of a larger study. Her indigenous theory is a reconstruction of the social actors' "rules for being"; rules that are part of their process of adaptation and also part of their particular solutions to the problems encountered in the business of life.

Craig found that health is an important focus of childhood (cf. Le Vine's analysis above), and is seen as a prerequisite for children's sustained engagement in all activities that allow for the acquisition of adult competence. In Craig's study, she found that a concern for the child's health reflects on the particular kind of care the mother is able to provide for her child, as well as improving the child's chances of participating in what the world might have to offer.

There are two pertinent themes running through Craig's analysis; firstly, example and demonstration as teaching methods, and observation and imitation as modes of learning. These are highly relevant to modes of teaching and learning in school, and they deserve detailed attention. Craig's reconstruction would seem to concur generally with other African research in which schooling is a form that has entered the society within the last one or two generations (Whiting and Edwards, 1988).

5.2.3 (a) Example and demonstration as teaching methods

Traditionally, in-context learning was the predominant mode of acquiring knowledge. However, since traditional skills have diminished (except where there are special ethnic artistic considerations), learning by example and demonstration seem to be confined to learning how to do household chores. In this, the child accepts instruction without question. The burden for teaching has, in the township context, fallen on the mother or the mother-substitute (e.g. the grandmother). The example and demonstration of adults' behaviour is supposed to regulate children's conduct (along with, of course, punishment for wrongdoing). A prime focus for the socialisation is in the area of moral behaviour. The purpose of learning is to learn the correct and appropriate ways of behaviour: adults are moral guides for action. Examples of morally appropriate ways of behaving (and these we have observed in the classroom) are: the way to hold your hands when receiving things, using the adult's appropriate title, kneeling before the father when addressing him, and not looking an adult in the eye. Clearly, these behaviours would be modified with age. According to Krige (1950), knowledge traditionally, is closely tied up with morality - for if one knows how to behave, one can control other forces, for example, fertility. Although the perception of the causes of natural phenomena have changed, the social significance of correct behaviour still prevails: although that social forms no longer are imbued with causal power, they remain important as "the way things are done".

It seems that the adults perceive themselves as the "gatekeepers of knowledge", who open the door to knowledge slowly - the focus seems to be on the control of knowledge, not the acquisition of it (might we say, adult-centred, rather than child-centred).

Example and demonstration are not sufficient mediators for western decontextualised learning that is central to effective school learning. The disappearance of story-telling in township life has removed a powerful medium for developing the child's powers of concentration. It may be true among older people, that formal education is still seen as something foreign, as part of the "white man's history." Formal learning is still seen as something remote from the home - indeed it is seen as the job of the teacher, not the mother. There is not yet the realisation that the home is one of the most important determinants of the academic success of the child.

5.2.3 (b) Observation and imitation as modes of learning

The most important condition for learning is seen as respect. One of Craig's informants felt that if children had no respect, they definitely won't take instructions. Craig interpreted the information she got on this matter as meaning that if the boundaries to knowledge that are laid down by authority figures are exceeded, the child will be confronted with situation he may not be able to handle. Upholding authority relations, then, creates a "safe world" for children in which problems that are confronted will be familiar to adults who can guide children in solving their problems. Our interpretation would add to this - that upholding authority relations creates a "safe world" for the adults too, and as gatekeepers to the garden of knowledge, they will not find their surrounding wall ambushed, and the balance of power disturbed. The "safe world" of the adult has as a consequence that the child cannot easily achieve more than the adult has.

In the early part of the child's life, the caretaker will teach the child the skill of imitation, but after about two years, this will no longer happen. Teaching, then, need not be verbal or explanatory, and "being there" is a sufficient condition of learning.

Through observation the child is expected to learn a great many things, but this learning takes place within socially accepted parameters. In other words, what is learned and how it is learned are regarded as very important. There are taboo topics - such as sex - that the child should not have access to. The inquisitive child - and here the infant is excluded - is regarded as forward, cheeky, and disrespectful. The inquisitive child might learn the wrong things. "Why" questions are often actively discouraged, and listening to conversations between adults is considered a forbidden activity: however, these last two statements do not carry equal force with the younger "modern" mothers. This liberalisation is bemoaned by the older generation, and as Craig (ibid p.171) says, "the concern appeared to be mainly over the loss of respect for adults, as if knowing itself was a danger that might destroy the social balance between the younger and older generation".

Preliminary data on the Socio-Cognitive Milieu Project at the HSRC indicates that preschool children do in fact ask lots of questions (Liddell, pers. comm.). This new data may compel us to rethink our indigenous theories, but I feel that judgement should be reserved until qualitative analysis has been carried out on the nature of the discourses in which these questions are embedded: this work has already begun on the abovementioned project.

5.2.4 The role of questions in adult-child communication

The role that questions play in adult-child communication will be complementary to the role that these play in child-adult communication. We have seen that children simply do not ask questions of their teachers. From our other research (cf. the science module) we observed that teachers did not often ask questions that required novel, problem solving strategies from the children. Rather, they were more intent on checking that children had attended to what they had been teaching.

Observation of teachers in informal settings outside the classroom indicates that they will not actively solicit information from small children. When they do have to ask children questions about what is going on elsewhere in the school, the child's answer is usually treated with a certain scepticism, and checked. They seem never to engage children in Socratic dialogue, either inside or outside the classroom. Knowledge seems rather to be a package that needs to be imparted as a whole.

The role of questions used by teachers and mothers, Negro and Anglo-American, has been researched by Heath (1982). She found (p. 110, 120) that Anglo teachers, with their own children, would ask direct questions of their preverbal infants (e.g. "Are you hungry?" "Oh no, I see that something is hurting you"). When acting as teachers, they would ask many questions that required the child to pull attributes out of context (e.g. "What things that are yellow can you see in this picture?")

The parents of the Negro children in the same working class neighbourhood would not address their preverbal infants, but rather, would make statements about them (e.g. "Something's the matter with this child"). They do not engage their children in conversation until they consider them to be realistic sources of information, and competent partners in the task.

Heath's Trackton study is but one example of cross-cultural research in child language acquisition about the varying linguistic environments and language socialisation patterns that are present. Uses of questions vary in numerous respects. For example, it may not be the mother nor even members of the immediate family that direct the highest proportion of questions to young children, because the language socialisation network includes a wide range of participants (Harkness, 1977). In another society, questions are not considered highly relevant to learning how to accomplish tasks (Goody, 1977; cf. also Craig's preschool Zulu children and their mothers and teachers, 1985). In yet another society, children have very little exposure to *why* or *how* questions (Blank, 1975). Among other groups, questions are intimately linked to imperatives (e.g. "Are you going to tie your shoe-laces?"), explaining the reasons for commands, or the consequences of not obeying orders (Cook-Gumperz, 1973).

Tizard (1985) carried out some very interesting research on the different kinds of language British nursery school children are engaged in when they are at home, and in school. At home, the child would constantly be engaging in questioning their mothers. For the mother, it was a matter of immense personal concern that that their child should be acquiring skills. She is more likely than anybody else to understand the nature of early egocentric communication, since she has shared the child's experiences. Tizard sees the mother's task as being that of facilitating implicit conceptual learning. For the child, she integrates past and present knowledge and projects into the future.

The nursery school teacher, Tizard found, pursued educational commitment to the individual child much less seriously, for the understandable reason that she has so many children to attend to. The teacher is much less likely than the mother to understand early egocentric communication; and the child has relatively little access to the teacher. The teacher functions to facilitate the explicit learning of perceptual and motor skills.

In general, the specific characteristics of questions and their uses in socialising young children are highly dependent on the network of those who ask questions. A preschool child who has frequent contacts with individuals of both sexes, different ages and varying degrees of familiarity with his world will be used to very different questions from the child in a nuclear family. What is of particular interest is that the assumptions made by the questioners about the functions of their questions in the socialisation of the child will be very different. In our context we do not know what these assumptions would be. Neither, for that matter, do we know precisely the patterns of question-asking that prevail. This is an extremely important question for research, since it will have implications for the cognitive development of the child; the kinds of questions the child gets asked will be internalised as the kind of questions the child will later think it proper to ask himself. The research currently being conducted by Liddell at the HSRC will go some way to answering questions about the five-year child's social cognitive environment.

Liddell (1987) is concerned to establish in detail the sociocognitive milieu of black children in township and rural areas. She points out that while psychologists and educationalists in South Africa have amassed a great deal of information about black children, most of this is in what is called the "folk model" i.e. what parents say that their children do or should do, or what they can remember about their childhood. Liddell claims that most of the articles published in this area contain no first hand data. However, folk models are not adequate (Antonovsky, 1959), since they tend to be unreliable and poorly correlated with actual data on childhood experience. Nowadays, parental reports are rarely used in Western research and retrospective accounts have been discounted altogether.

The folk models that Liddell describes are very similar to the descriptions generated by Craig (1985), but Liddell would question the extent to which these models are valid.(5) In doing empirical studies on the home experiences of five year-old children, Liddell should simultaneously make a contribution to our research and development areas: firstly, nearly one third of black children fail Grade 1 (Liddell, ibid), and we need to know what makes the impact of this first year so profoundly adverse. Secondly, if we know how parents and their children interact, we will better be able to plan a pre-school enrichment programme that operates from the home. Thirdly, whatever "positive" effects can be detected (against the folk models that are so negative) could be capitalised on in the design of future educational curricula.

In the Socio-Cognitive Milieu Project, a total of eighty five year-olds are being observed in their homes, each over a period of two weeks. The focus is on who the child interacts with, the content of the interaction, the level of the interaction used, the activities the child participates in, and how much these activities demand of the child cognitively.

5.2.5 Cognitive development through peer relations

Ideally there is a reciprocity in child-child relationships in terms of the construction of shared meaning. Traditionally, the influence of the peer group has been very strong, and hence we would have expected this to have partly determined the nature of the child's cognitive structures - both in the social, linguistic, and problem-solving domains. Although the situation seems to have changed more recently, it is worthwhile looking at the original picture in order to be able to recognise vestigial patterns.

Krige (ibid p.96) gives the following description of a typical African situation (in which we have marked points for further comment):

> At an early age children learn not to sit or eat with people older than themselves [1]. They spend most of their time with those of their own age [2], play together or work together, and are recognised by their elders as a group, from which collective responsibility [3] in herding and other occupations is expected. At first no wider than the immediate family circle, this group, as the child grows and comes into contact with an ever-wider circle of people, includes first other children in the neighbourhood, and finally, at circumcision or enrollment into a regiment [4] embraces all of a same age within a tribe. The educational value of these age sets is very great: not only are selfishness, bad temper and other faults more effectively checked by the group than they could ever be by par-

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(5.) It does not necessarily follow that Liddell's work will discredit the extended analysis of mother-child dyads that has been conducted at Natal University. The paradigms are different; so, for example, Craig would accept reasons as causes in a rational reconstructivist paradigm. Liddell, on the other hand, is concerned with quantitative descriptions of children's interactions with objects and people.

> ents, but the younger children are strictly controlled by the group just older than themselves.

There are a number of comments that need to be made (in the same order as they were raised by Krige). Firstly, as we have noted above, modern children often may sit with adults, although on many social occasions, I have seen the children firmly separated off.

Secondly, children do spend a great deal of time with other children; one sees little groups of toddlers at the roadsides playing together, older children playing together after school, and within the family, siblings interact closely. In the classroom, one senses that children close ranks in relation to the teacher, and that it is important for them to keep in with the group.

Thirdly, although there is no more highly visible collective responsibility within tribal activities, one does see groups of children being assigned tasks in the school. For example, groups take turns to clean the classroom, and they are expected to participate willingly and actively.

Fourthly, the importance of age sets has disappeared in the original sense that they no longer have an acute sense of belonging, having undergone a traumatic experience together; initiation schools are now rarely formally constituted amongst the Tswana. One of our teachers bemoaned the loss of these, saying that it was within them that the child learned a fuller sense of morality and collective responsibility than could ever be learned within the school. He felt that there is now a distinct moral vacuum which needs to be filled.

It should be pointed out that in different situations, such as township unrest (Chikane, 1986) and with "street children" (Scharf, Powell and Thomas, 1986) there are new social structures that emerge amongst children for meeting the specific demands of these (continuing) crises constituted by South Africa's socio-historical situation.

To turn to a more general discussion, cognitive development can be expected to be enhanced by social relationships among children only when children have the opportunity to test conflicting ideas and explanations, discuss them, and decide to accept, reject, or modify them (Krappman, 1985). Actual reality may be full of struggles for dominance, quarrels about who is right, punishment for breaking rules, as well as resistance, avoidance and retreat. When we talked about the absence of collaborative groupwork in Chapter Four above, we did make mention of the absence of explicitly expressed negotiation even when the children need practical things of each other.

However, we need a great deal of information about the specific nature of social relationships as a framework of meaning and concern. The quality of relationships will determine the nature of the tasks we can expect children to succeed on. This research area has scarcely been addressed, and yet if we think that the peer group is the most important reference group for children - as well it may be - there are many questions for further research. Here are some to start with:

Picture 24: *A rare instance of teaching by a more able peer*

a. Do children really think that peers are a source of effective learning and knowledge, or is this role relegated to the teacher?
b. What kind of learning is engendered in peer relationships?
c. What degree of learning is engendered in peer relationships?
d. What kind of peer relationships do academically competent children develop (in school)?
e. What kind of peer relationships do academically weak children develop (in school)?
f. Do relationships with peers and elder siblings differ substantially in relation to the negotiation of ideas?
g. What sorts of situations could we build to facilitate collaborative groupwork, or the type of groupwork that children find most comfortable?
h. Does the formation of ability groups reduce the learning opportunities for the weaker children, relative to the opportunities that would present themselves in socially formed groups?

Finally, any of the above eight questions could be addressed to determine sex differences in these kinds of relationships.

5.3 PARAMETERS AND POTENTIAL FOR CHANGE.

In the rationale for this study in Chapter 1, we set out some basic presuppositions. We were to try to establish the relationship between culture and knowledge, and the values and beliefs and role conceptions that obtain. These insights were to be combined with observations about the current state of the curriculum. An integrative account of the system would allow us to develop a conception of possible change.

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We tried to enter the imaginative universe of the school system, and found many things idiosyncratic to the PEUP, although it necessarily shares a number of variables in common with other education departments in the Republic. However, because of the principal focus on the PEUP, recommendations for change are primarily directed in its direction(6).

Much of what the PEUP set out to do, they have achieved. If we refer back to Table 1 in Chapter 1, we find that there are only two aims that have not been fully addressed. The one concerns the development of the child as a problem solver, and we have seen that the materials and the presentation by the teacher has not been oriented towards problems, but rather towards the straightfoward acquisition of ideas. The second is to do with learning concepts: new ideas are not introduced systematically, and by the time the child reaches Std 3, he has difficulty coping with the veritable deluge of new ideas that are presented to him.

Picture 25: *The austerity of the learning environment in Std 3.*

One of the general findings of the Threshold Project is that Std 3 children are rarely adequately prepared for the learning task in front of them. The change of medium rubicon has not been crossed by many of the teachers and officials, and in many cases only the Std 3 teachers seemed to be sufficiently aware of the extent of the language and learning problem. The vision that we would have for the higher primary would require a major reorientation in the lower primary as the critical locus

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6. The limits to the generalisability of the parameters for change should be taken very seriously. The PEUP has developed into a rather unique agency of change, because of its original conceptions, the common will for change, the introduction and development of materials, and the fact that developments to date have been institutionalised i.e. more or less universally implemented and consolidated over a period of years.

of initial development: we would hold this vision if we could ensure that pupils are doing work that is more meaningful and more accessible, and that children are able to tackle problems in English.

One aspect of the PEUP Total Approach (Table 2, Chapter 1) must still be further developed, and that is the orientation towards producing appropriate learning materials. In order to further this activity, which we have seen as necessary, the most effective way would involve a coordinated effort in which materials developers negotiate with experienced and insightful teachers who would assess what is a reasonable step forward. This negotiation is critical, because if the next phase of innovation is too radical, there would be grassroots resistance. However, the concept of rolling reform might ensure that further development would and could take place.

In Craig's terms, black education has entered an unfamiliar reality. In many cases participants in the system don't know that anything better is possible. Teachers should learn to grow in their expectations of what is possible to expect from their children. In the present situation, it is difficult for a pupil to surpass the teacher in any way : the teacher is the locus of knowledge, and the child can only do what the situation allows.

In transforming realities, there have to be explicit opportunities for change; change will be empowered by the generative power of transaction; and, there will have to be agents who serve a mediating function between realities.

The explicit opportunities for change were originally created when the Bophuthatswana Department of Education sought to construe their mission in the first education commission. There were a number of participants in the building of a vision of change. The agents who served a mediating function between realities were people such as the PEUP's first coordinator, Christel Bodenstein. What was so remarkable about Cristel Bodenstein was that she has had a vision comprising elements of black, white and German education, and that she negotiated step by step to evolve a new model of education. New mediators must now emerge to establish in the project as a whole the realization that there is a conflict between the goals and the current means for reaching them. New goals will emerge as the vision develops from an understanding that the system has the potential for organic growth from the strong roots that have developed. Furthermore, the mediators will have to have or be able to develop the resources for surmounting this conflict. New mediators and goals will benefit from transaction with other people who mediate between conventional and indigenous styles of education.

This new development must occur, otherwise the project may run down. The will to meaningful change must be sustained over another decade, if the seeds that are planted in the primary project are to reaped in abundance in the secondary schools. If the PEUP does not nurture its present blossoms there will be no harvest in the later years.

Another reason for advocating the continued development of the PEUP is that it serves as a role model and a point of optimistic reference for many of the other education departments in the sub-continent. The significance of this encouragement should not be underestimated by anyone.

CHAPTER SIX

AN INTEGRATION OF FINDINGS

6.1 TOWARDS AN INDIGENOUS TEACHING STYLE

At the beginning of Chapter 1, I quoted Hawes' (1979) analysis of how an innovation does not enter a vacuum, but rather, enters a matrix of existing educational practices. This makes sense if one concurs with Dewey (1966) that education is a process of living, and cognitive and societal structures exist by virtue of our being meaning-creating beings.

In the PEUP there have been borrowings from progressive western education, particularly with regard to differentiated group work, and other more central accoutrements of child-centredness, such as the focus on developing autonomy and creative self-expression.

What Hawes terms "survival teaching", which is intensely teacher-dominated teaching with a focus on rote reception learning, has to a great extent been obviated. This practice, which was caricatured for us by children in a playlet, showed the children, for example practising their letters by shouting "a,a,a ...". No small wonder that the children did not know the whole alphabet by the end of Grade 1: it simply made no sense to them. The reason why the PEUP has largely been able to eradicate this mode of teaching is by institutionalising the new methods over a period of years. Now most teachers know what it is they are supposed to do (even if they don't always do it!) The only way the teacher can escape the expectations of the system is to leave it and teach in another education department. Another major determinant must be the fact that on-going evaluation has replaced examination and formal tests for the first four years. So now the teacher does not have to concentrate on what is called "cramming" the children, and focus on a breadth of exposure to a different variety of tasks. The tyranny of the test still occupies time and energy in other departments and schools.

One of the ways the PEUP was able to effect change, was by changing both the teachers' behaviour and their attitudes. The teachers have a sense of communal enterprise, of which they are fully-fledged and fully participating members. There has been a fundamental change in learning activities, with children pacing themselves on independent tasks, and not continuously being monitored by the teacher. However, the teachers pace themselves and their children in such a way that they do not finish their programmes of work. Where a learning programme is tightly ordered, such as in mathematics, this phenomenon has a knock-on effect. It would be of benefit to reveal to the teachers that their pupils can be trained to work more quickly, to attend to their tasks more efficiently. A constraining variable here would be the teacher's inclination: very efficient children simply breed more work for the teacher.

The focus of learning would be on the meaningful reception of concepts. The concepts dealt with in the first few years are largely accessible to teacher and child alike. If, as we have described it, the teacher's prime focus would be on the control of knowledge and not its acquisition, this value will become detrimental when the curriculum broadens its horizons. The safe world that the teacher constructs will no longer be safe in any meaningful way: the teacher will merely ensure that the pupils are as unable to understand disembedded - foreign and inaccessible - concepts as she is.

It is our contention, developed in our research on science teaching, but also applicable to language learning, that the most appropriate model to adopt would be a so-called *transitional one,* in which:

* the teacher would still have visible authority over their children; there would be consensus between the teacher and the pupils that this should be so;
* the teachers would be imparting her knowledge, but in a different way: it would be an active imparting and an active reception, and
* the skills of questioning would come to the forefront.

To develop Ausubel's (1985) position (which we described in Chapter 2) further, teaching for meaningful reception requires teachers to have well developed self-critical and integrative faculties. *This is a limiting condition for change in the system.* The evidence we have adduced in our present study, as well as in our science research would suggest strongly that firstly, the self-critical faculty might not be well-developed. There appears to be some similarity between what Ausubel intends and the concept of meta-cognition: does the teacher distinguish clearly between those cases when she knows from those cases when she does not? Does she know how to clarify concepts which she knows she only understands vaguely? Does she integrate her own new knowledge into her existing cognitive structures in such a way as to be able to direct her pupils along the same path?

If we accept Ausubel's conception that the central task of pedagogy (p.78):

> ... is to develop ways of facilitating an active variety of reception learning characterised by an independent and critical approach to understanding of subject matter,

then there are certain pedagogical techniques that will come to the fore. Included here would be teaching children to distinguish between facts and hypotheses, and between warranted and unwarranted inferences. The teacher would, for example, be concerned to delineate similarities and differences between related concepts. *These are pedagogic techniques that are largely foreign to the teacher,* and therefore she would have to be trained in these, preferably on the very materials that she would be teaching(1).

In summary then, we could say that it would seem appropriate to concede that the teacher have visible control of the learning process, but at the same time to expect that she learn new strategies for meaningful reception teaching. To say this is not to deny the pupils the right to immediate experiential learning, but to acknowledge that this mode will

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1. The importance of training teachers on new strategies for teaching was brought home on the Molteno project, who found that the teachers didn't understand the problems that were built into their Std 1 course.

have limitations when the children proceed up the course of the primary school.

In order to bring the study full circle (from Chapter 2), we shall finally go through the different aspects of teaching style that Bennet (ibid) identified, in order to illustrate changes that are considered possible.

1. The subject matter would be integrated in the lower primary years, but become differentiated in the higher primary.

2. The role of the teacher would initially be as a facilitator of experiential learning, and very soon of meaningful reception learning.

3. The role of the pupil would be to explore his environment, and use his senses to experience it; gradually he will be brought to have a critical awareness of things around him, and later of things remote from his experience. He will be an active participant in the learning process by attempting to construct his own integrated meanings.

4. The teacher will participate in curriculum planning with primary education and subject specialists. The pupils' interest would be taken into account in order to match the tasks to the appropriate developmental level.

5. Learning experiences would be constructed in the here and now initially, and become progressively more disembedded. However, the common element in these experiences would be that the child integrates his learning, "making it his own".

6 The notion of punishment would be oriented to the child understanding the social context of his misdeed, and reward would be given for effort, and not only achievement. (This aspect would need further investigation.)

7. The areas of development that would be prized would be those that have to do with social and moral development, with academic achievement being defocussed.

8. The nature of testing would be such that it is diagnostic of the child's capabilities, without undue emphasis on the retention of facts. When formal evaluation is introduced, it should focus on the application of the principles that have been taught, in order to assess the progress the children are making with knowledge integration.

9. The co-operative nature of learning would be emphasised, showing that it is a matter of give-and-take between children from different ability groups. Competitiveness would be encouraged only insofar as the child is compared to his potential as the teacher perceives it. The child should be encouraged to develop self-knowledge about his own potential.

10. The location of learning would continue to be basically the classroom, but children would be encouraged to apply their concepts and skills to everyday situations and events, reporting on these in the classroom.

11. The accent should remain on creative expression, but during the course of the primary years, the children would be trained to apply critical skills to the discourse processes (coherence and cohesion) of their own writing and speaking skills.

All these aspects of an indigenous teaching style would need to be developed further (cf. Chapter 7 below). However bland or general these aspects would seem to Western educationists they would take a major reorientation on the part of the education departments to achieve.

6.2 CURRICULUM DEVELOPMENT AND CHANGE

In discussing the high hopes of post-colonial education Hawes (ibid) reports the disappointment suffered by many curriculum developers. The African educationists had underestimated the process considerably. Hawes talks about the process of selecting from the culture, and transmitting this selection to the learners. In our terms the culture would include the values, beliefs, role conceptions, and the view of knowledge, along with the knowledge base and the immediate needs of the society for adaptation to a changing society.

In Craig's (1987) terms, a succesful learning transaction, and here we would refer to the approach learning in the educational system per se, requires three conditions: firstly, there should be a conflict between current and expected knowledge; secondly, there should be an opportunity to intentionally pursue a resolution, and finally, there should be the provision of resources to surmount the cognitive conflict.

The first condition that Craig refers to would be instantiated by a realisation that there is a mounting problem once the children have to learn through the medium of English. This is a manifestation of a crisis that has its roots in earlier learning. The problem is not simply one of language learning, but includes the learning of basic concepts and skills (processes), on the part of the teachers and the children. This broader conception of the problem has not previously been widely recognised.

The second condition is that there should be an opportunity to intentionally pursue a resolution. Such an opportunity would be most meaningfully created in a genuine transaction between subject specialists, cognitive developers, method specialists, curriculum developers, and experienced teachers. Given the parameters of the current efforts towards revision of the curriculum, this is a tall order to meet in the present situation. However, such a meeting of minds is necessary so that a new curriculum would not finally be interpretable in merely content terms, in the hands of the teacher.

The third condition for the successful learning transaction is that there should be the provision of resources to surmount the conflict. It is a major effort to develop a new curriculum for one subject, and a similarly large effort to integrate the different subjects insofar as they need a common conception of appropriate learning strategies, and target concepts and skills. However, fine looking curricula will stay fine in theory only, if they are not interpreted into a detailed plan of materials development and pre- and in-service training. The PEUP has the permanent infrastructure for in-service training, and this can readily accommodate the implementation of new syllabi. However, as has been argued above, the teachers would have to be reoriented towards meaningful integrative learning. The teachers will best learn this by experiencing their refresher courses in the way that their pupils are expected to be taught. This important principle of in-context learning will apply until teachers are able to abstract from the principles themselves.

In order for the children to learn meaningfully, it is suggested that there should be a pared-down central "list" of concepts that the children are expected to learn in the core curriculum, but a complex set of information sources for deriving this information (i.e. not one common textbook). Concentrated attention should be focussed on these concepts and on the process skills to be developed around them. The concepts should be examined in a variety of different contexts, so that there can be solid vocabulary development, and an active integration of concepts.(2) This principle would apply to learning both in the first and the second language.

In the English Language Skills Evaluation Final Report of the Threshold Project an argument is presented for the development of concepts and process skills in both the mother tongue and the medium of instruction. Both the languages should carry a rich load of "across-the-curriculum" learning, in addition to the language-specific characteristics which will have to be mastered.

The intention of this particular study was not to redesign specific aspects of the curriculum. However, general principles are adduced, which may be of help in curriculum design. Firstly, we shall look at particular language skills that the children have to develop to cope with English as a medium of instruction from Std 3. We adopt the presupposition that mother tongue skills will transfer to English. In that case the objectives for the two languages can be stated in parallel.(3)

1. Develop the pupils' ability and willingness to listen to and speak English/their mother tongue in communicative acts both in the classroom and out of it. Particular oral skills include in-

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(2.) There may well be resistance on the part of the teachers to this approach, if they see learning as a simple accumulation of "facts". They would have to experience the power of integrating information in different ways.

(3.) These objectives are slightly adapted from the draft English syllabus objectives prepared by a specially appointed English subcommittee, and presented to the Department of Education and Training Task Group for the Revision of the Junior Primary Curriculum in November, 1988.

formal and formal conversations, describing competencies, story telling and oral reading.

2. Build on the basic skills of reading which have been developed on materials with familiar themes (Stage 1 and 2), and start to make the transition to expository texts which deal with themes that are less familiar (Stage 3).

3. Build a foundation of writing skills on phonic experience to the level of elementary extended writing of continuous text with simple cohesion devices such as reference and substitution. In the mother tongue children can learn the discourse structure of different types of writing, including narrative, persuasive and expository discourse, including the judicious use of proverbs and idioms.

4. Develop the grammatical competence to a level where pupils apply correctly and fluently (albeit implicitly) most of the basic rules of English/mother tongue grammar, including sentence formation, word formation, and stress (in words) and intonation patterns (over sentences), the last two being apposite to English. Special attention would be given to those sentence forms that are structured differently in the two languages.

5. Develop sociolinguistic competence to the level where pupils have a basic awareness of social context, for example formal versus informal, and the way in which this affects language form.

6. Develop discourse competence to the level where pupils recognise and use (in simple forms) basic organisational patterns such as occur in narrative and expository texts, and develop the ability to make simple inferences from text.

7. Develop a range of concepts starting with those embedded in basic interpersonal communicative situations, broadening to a range of disembedded, academic concepts.

It is possible that teaching a specific subject through the medium of English would be one of the best ways to learn English. The following principles that have been partly extrapolated from Palma and Myer's (1988) work in an "immersion" setting would have value if they refer to preparatory English across-the-curriculum learning, or to actually teaching a content subject through the medium of English:

1. The content should be of interest to the learner. If it has no immediate relevance to the learner, the teacher would have to ensure a generally positive attitude.

2. Involvement of as many senses as possible, to consolidate concept formation.

3. The initial presentation of a theme or topic should be as structured as possible, to maximise the possibility that "alternative conceptions" will be obviated.

4. The vocabulary should be presented in thematic clusters, to allow a semantic framework to be constructed in which representations support each other.

5. The process of learning vocabulary and concepts would include repetition for specific purposes, including passive identification (recognition), active identification, imitation and use in novel communication.

6. There should be active pupil involvement, whether in simple linguistic exercises or, if possible, through some hands-on activity.

7. The pupils are required to do novel tasks with concepts they have learned - to "make them their own".

8. The classroom environment should simulate real-world situations, where authentic comunication is needed.

This set of principles would lead to the development of materials that look very different from the currently available textbooks and/ or language schemes. In the English Language Skills Evaluation Final Report, Chapter Seven, there is an extended discussion on the idiosyncratic aspects of using a second language as a medium of instruction, aspects which should facilitate course design.

In summary then, in this chapter, the focus of learning appropriate to the context is on the meaningful reception of concepts. The transitional model developed in our research on science teaching is implicitly drawn into the discussion, where teachers are seen to be explicitly in charge of knowledge, but they help the pupils to develop theirs by active participation in knowledge integration. I developed the proposed model further by redescribing teaching style in the parameters that Bennett (ibid) drew up. Then we delineated objectives that might be addressed in the learning of both the mother tongue and English: these included objectives for reading, writing, listening, speaking, and grammatical, sociolinguistic and discourse skills.

We concluded this section by developing some principles for teaching English across the curriculum, or alternatively, teaching a content subject through the medium of English: these principles specify aspects of mastery, coverage and generating positive affect, but are neutral with regard to details of class management. Adoption of these principles would lead to materials rather different from those currently available.

CHAPTER SEVEN

RECOMMENDATIONS FOR FURTHER RESEARCH AND DEVELOPMENT

When audiences read or hear about the Threshold Project, they seem to presume that the topic that has been addressed on that specific occasion is indeed the focus of the project. (We have been thought to be experts on geography, science, textual analysis, cognitive development and other even more esoteric things!) This is very rarely the case: the aims of the project are very broad-ranging, and to this extent, the depth of the investigation is rather variable. For example, if one was asked about school-based learning experiences, one might choose to focus on isolated variables such as discipline or learning materials. In the present report, the focus was on several areas, inter alia, teaching style and selected aspects of the curriculum, including the languages and environmental studies, and also physical resources. The areas that have been earmarked as having potential for further research which are now going to be discussed. These arise directly out of the observations and insights of the present research. They fall into the following eight areas:

1. The development of a context sensitive pedagogy.
2. The development of a "meaning" oriented curriculum.
3. The evaluation of current methods of mother-tongue teaching along with potential experimental methods.
4. The enhancement of reading habits.
5. The relation between learning and peer relations.
6. The possibilities for enhancing the teacher's time management skills.
7. The affective relation between the teacher and the child.
8. The role of questions in the socialisation of the child.

7.1 THE DEVELOPMENT OF A CONTEXT-SENSITIVE PEDAGOGY

The forty years since the end of World War II have witnessed the explosion of cross-cultural research on cognitive development that has enlarged conceptions of the educational process. The Laboratory of Comparative Human Cognition from California (1986) describe three phases in the relationship of cross-cultural psychology to education. Firstly, there was the application of Western approaches to Third World countries. After that came the search for culturally specific modes of learning and reasoning. More recently the findings of cross-cultural research has been applied to questions of educational innovation with pressing concerns such as the education of ethnic minority and language minority children.

At this point, in our situation, we can reverse some of the descriptive terms, and ask questions, for example, about the education of ethnic majority children who are being educated through the medium of English. It is this "obverse" situation that our project addresses.

It was the intention of the present study to make a contribution to cross-cultural educational psychology. It was with this orientation in mind that the recommendations for the development of an indigenous teaching style, as well as implications for the curriculum, were spelt out. However, there are undoubtedly certain aspects of the situation that have gone untouched in a study which was conducted with a broad perspective in mind.

There is much further research which not only can, but must be, embarked upon. In order to give vision of what is possible, two recent American studies are briefly described which have mixed, matched and invented novel educational activities. In a kind of planned syncretism the goals and experiences of the school as well as the community can meet. Culture-sensitive pedagogy does not mean a focus on the traditional arts, foods and folklore of a group; rather, on a deeper level it depends on a sensitivity to "relatively subtle aspects of interactional etiquettes that are likely to go unrecognised by non-native teachers" (Erickson and Mohatt, 1980). We should like to add that these etiquettes may have even remained implicit to the native people themselves ("experience-far" in Geertz' (1973) terms) and that it is part of an ethnographic approach to make such patterns explicit.

The Kamehameha Early Education Project (KEEP) works with native Hawaiian and part-Hawaiian children. Initial attempts to develop reading competence with structured methods did not succeed (Au, 1980). However, as the project moved into the direct teaching of reading comprehension it inadvertently discovered a method that captured the children completely. This method was found to be very similar to an autogenous cultural activity, "talk story". The children had all been present on many occasions of "talk story" (where participants have a chance to contribute to the discourse line of the story), but they were not old enough themselves to participate in "talk story" at home. As a consequence they perceived reading as a desirable variation on an interactional pattern that they were accustomed to.

It has been pointed out (Laboratory of Human Cognition 1986) that this pattern may be a locally effective strategy, or may have more generalised applicability. Perhaps some teachers can use the strategy and others not. In any event, Au's research turned up an unexpected connection between Hawaiian culture and reading.

A different kind of demonstration has been provided by Erickson and Mohatt (ibid) from work among the Odawa in Canada. In this case too, successful educational strategy was connected with discourse modes prevalent in the children's community. The apparent passivity of Native-American children in the classroom has been widely observed. For these children a person can only be structurally set apart in a group setting if he is an observer. But they encounter an Anglo-American teacher who is a single, powerful person who regulates the behaviour of others. To make matters worse, she hands out criticism or praise on a public occasion, which is something abhorrent to the child, who remains silent (a good observer) and finds it difficult to answer questions that the teacher addresses to him personally.

Erickson and Mohatt showed that it is possible to construct rules of participation that are a functional blend of the conventional school curriculum and the native discourse style. Both the teacher and the children were able to adapt to this new style. What is important here and in the previous study is the discovery of cultural structures that are appropriate for instructional purposes.

There was no such research(1) on the present project, but if there were to be, it would be on the development of the potential of learning in age sets. Although the teacher has replaced the cohort as the primary agency of educational socialisation, it remains to be seen whether the children could construct effective learning agencies in the modern classroom situation. This notion is developed in more detail in point 4 below. What is more important to point out here is that such an orientation should be possible. We may be wrong in assuming that everybody thinks that small children are meaning-creating beings and hence to be stimulated individually in every possible way: evidence adduced in Chapter 4 points to something of a different picture.

7.2 THE DEVELOPMENT OF A "MEANING"-ORIENTED CURRICULUM

The term meaning here is between inverted commas, since we have in mind the specific kind of meaningful learning that Ausubel (1985) refers to. By that we refer to meaningful receptive learning, which takes as its point of departure that the integration of knowledge into cognitive structure is ideally an active process. There are strategies that a teacher and curriculum developer can adopt to optimise this process. Our own experimental materials in science and geography that were trialled on the project were a reasoned attempt to optimise integrative learning.

In meaningful learning, the processes of acquiring information results in a modification both of the newly acquired information, and the specifically relevant aspects of structure to which the new information is linked. Ausubel makes a distinction between curriculum planning which focuses on the organisation of knowledge in a discipline, and the instructional plan, which places primary emphasis on the learner and the kind of pre-existing knowledge that he has to serve as anchorage to new learning.

The important idea from Ausubel's assimilation theory is that optimal learning requires the progressive differentiation of concepts or propositions from cognitive structure. Therefore these concepts should be the basic elements of the curriculum plan.

Ausubel has a fairly elaborated theory with specific terms for the critical aspects: what is interesting for our point of view is that curriculum development seems to generally proceed from an additive view: i.e. we have these concepts and they will be learned in way X. The temptation is then for the teacher to focus on the content. Here we have a

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(1.) Such research would be placed firmly in the cultural relativism camp, which we have argued against in our Reasoning Skills Final Report. Cultural relativism is an orientation that could lead inadvertently to a "chocolate-coated" neo-apartheid in education. See the Reasoning Skills Final Report for a full discussion.

theory that integrates concept and method, in a way that will challenge both teacher and child.

On the level of language learning, the primary concern of a meaningful curriculum would be on the creation of authentic communicative interaction. Here again there is a unity of method and content. While it is relatively easy to see how this can be achieved in language learning, it is difficult to achieve in practice. There is a real challenge to the teacher to come to a new orientation, and the development of any such curricula must have as an integral part of it a detailed and feasible plan of implementation. Added to this (bearing point 1 above in mind) there should also be a series of statements about factors which would either enhance or limit the effectiveness of such an innovation.

Ausubel has a view of what conditions would be conducive to developing a set towards rote learning. Firstly, pupils might learn from their teachers that only verbatim answers are acceptable: with difficult concepts that teachers are shaky on, they might demand this. Secondly, children may lack confidence in their ability to learn meaningfully because of a generally high level of anxiety or because of chronic failure experience: this factor may well be operative after the trauma of beginning to learn through the medium of English. The third condition involves children being under excessive pressure to exhibit glibness and to conceal their original lack of genuine understanding: children may become adept at using terms, even though their understanding of the underlying concepts is virtually non-existent. Each of these factors could bear some research, to establish in what ways and to what extent these conditions would obtain in black education - and the extent to which they would increase in the secondary school context.

7.3 THE EVALUATION OF CURRENT METHODS OF MOTHER-TONGUE TEACHING ALONG WITH POTENTIAL EXPERIMENTAL METHODS

There is growing evidence in the bilingual research literature (cf. Cummins and Swain, 1986) that some aspects of a learner's first and second language proficiency are interdependent. That is, they are manifestations of a common underlying proficiency. Cummins and Swain represent this concept as an iceberg which has got two tips, but which has an intersecting section below the surface.

What this means in our present situation, is that it is very likely that if one promote higher Setswana language skills, this will be reflected in enhanced English skills. A practical example of transfer would be that having experience with narrative structure in Setswana the child will develop story schemata which will help him approach English prose. So, the importance of the mother tongue would be seen as being important for the development of English; a second, but not secondary, reason for being interested in promoting mother tongue skills is part of a larger enterprise of developing the child's self-concept.

The critical, but implicit, assumption in the Interdependence Hypothesis is that there are indeed skills to be transferred. So, in one empirical study in a situation similar to ours, Roller (1988) found in a rural Zimbabwean school that there was not a great deal of transfer, but the skills in the mother tongue were not very advanced (up the higher primary phase).

The teaching of the mother tongue to black primary school pupils has not, to our knowledge, been recently evaluated in any education department. Perhaps one of the reasons for this has been a shortage of primary subject specialists, who would have a clear idea about what is possible for a child to achieve. In many ways, however, the first step could be taken with the aid of those people who have had experience in English language arts programmes for first language speakers.

The first place one might start would be with current achievement levels of children learning through Breakthrough to Literacy. The levels that these children attain by the middle of Grade 2 would be a good benchmark as a feasible level for other children to achieve.

However, since in the current study we have suggested that children experience some kind of "enhanced" curriculum, including a focus on both language across the curriculum and more sophisticated process skills in all the language modalities, we would suggest that research be taken further, namely into the development of an experimental mother tongue curriculum. In this situation there should be the best possibility of developing a curriculum that is both efficacious and acceptable to the mother tongue communities (which themselves might vary in what they find acceptable.) Tne importance of adequate mother tongue instruction has been discussed at length in the Reasoning Skills Final Report, and the English Language Skills Evaluation Final Report.

7.4. THE ENHANCEMENT OF READING HABITS

The children that we have researched have generally failed to be able to cultivate the habit of reading for pleasure: this is evidenced by the virtual absence of books in the classroom (and at home). One of the single most important overall conclusions that we came to on the Threshold Project was the need for a schools-based reading or literature programme (Cf. Chapters 9 and 10 of the main report). To date there has been very little research in the area of children reading in their second language. Osiobe, Osiobe and Okoh (1988), working with Nigerian primary school children, found that while 81% of the children had books in their homes, the average number of books in a home was 8; 55% of the children borrowed books from the library or friends regularly. No attempt at correlating habits with reading proficiency was made, but they do point out the importance of having books in the home, and of teachers getting children to check out books every week from the class or school library. What is conspiciuous in this small study is that the children had access to libraries in the classroom, school and the community. Basic research of this type is needed in the South African context, to facilitate the planning of a concerted literacy campaign. Development work has already begun in this area by organisations such as READ, and the Zenex Literacy Unit at the University of the Witwatersrand is seeking to co-ordinate the efforts of publishers in developing comprehensible texts. The United Nations has declared 1990 the Year of Literacy, and the Human Sciences Research Council is co-ordinating a local initiative in response to the declaration.

7.5 THE RELATION BETWEEN LEARNING AND PEER RELATIONS

It was pointed out in the first section of this chapter that this area should be fertile area for research. We pointed out in Chapter 5 that the quality of the relationships will determine the tasks that we can expect the children to succeed on. We have seen that if teacher expectations are made explicit, children can become autonomous managers of their own task schedules, but that by and large, they are still expected to respond to the teacher as an undifferentiated unit.

There are many questions for further research, the most basic of which would be whether the urbanised children would still take each other as a point of reference for significant learning. Traditional learning in cohort groups may still find its form in a new mode in formal westernised learning if teachers set themselves apart from children by purporting to be the unique locus of knowledge in the class. In this way, the children would all be seen to be at the same "disadvantage" relative to the teacher.

Other questions of interest would be to determine what kind of learning is engendered in peer relationships of different kinds, including children of differing ages, sexes and academic competence. It would be of great interest to explore different situations that would potentially facilitate groupwork. Something which would be useful to know would be the effect on the children's self-image in ability grouping relative to their self-image in social (mixed ability) groups.

We will have a valuable source of information on some of these issues when the Socio-Cognitive Milieu Project of the HSRC's Institute for Educational Research is completed by the end of 1990.

7.6 THE POSSIBILITIES FOR ENHANCING THE TEACHER'S TIME MANAGEMENT SKILLS

One of the widely noted (but sensitive) features in black education is the teacher's management of time, which affects her management of particular lessons, and both daily and yearly work programmes. We saw wide-ranging evidence of this during our observations as well as in our trialling of innovative sample materials. We also saw that children are able to respond to teacher expectancies regarding the pace at which they are expected to work.

There are very evident material factors contributing to this construct, such as the scarcity of resources and the number of children being taught. However, it might be worthwhile to regard this problem, for the moment, as purely a self-management and learning management phenomenon, and to treat it as such in an intervention programme. At the same time, an important consideration would be to try to analyse the phenomenon on a cultural level. What are the cognitive implications for developing a technologised-urbanised sense of time of having time reference in one's language as unspecific as those referring to the time when the mist lifts, and the time when the first rains come? How would these terms relate to those for more specific time? It would obviously be difficult to pick out cause and effect here, but the correlations would be very interesting.

7.7 THE AFFECTIVE RELATION BETWEEN THE TEACHER AND THE CHILD

One of the areas which was relatively opaque in the present research was the nature and effect of affective factors in the school situation. It may be that cognitive and affectures structures, while separable in theory, actually work together in practice, so that discovering something about affective development will also tell us about the formation of cognitive structures. Further analysis of values and role conceptions is required, so that the picture we have started to describe can be fleshed out.

It may be possible to work out a classroom-based model which both is consonant with indigenous values and which would enhance the children's learning in appropriate ways at different levels. We have in mind particularly what we called a teacher-centred enquiry approach, in which the teacher stills retains visible control of the class but at the same time stimulates the use of process skills. (This model is described further in the Standard Three General Science Final Report).

7.8 THE ROLE OF QUESTIONS IN THE SOCIALISATION OF THE CHILD

There is very little data on the nature of early mother-child interaction amongst speakers of different indigenous languages. The significance of early data would be in the description of the nature of the early processes, but also as a predictor of what the child is oriented to in his natural setting. For example, we would expect that the child would not be asked to pick out elements from a picture at home, and yet this is a favourite strategy of teachers who want children to develop their descriptive powers. Craig's (1985) research with Zulu mothers and children and teachers and children doing problem-solving tasks revealed that there was a virtual absence of probing questions by mother or teachers or information-seeking questions by children during the task executions. The important theoretical point here is that on a Vygotskian analysis we would expect that a passive mode of problem-solving would be internalised by the child. We need a further understanding of modes of solving different problems in a variety of ways: in other words, different ways of getting to the same goal. If it turns out that we are looking at different goals too, then this would be an interesting process of social-societal change for systematic observation.

7.9 OVERVIEW OF AN ONGOING RESEARCH PROGRAMME

When the Threshold Project addressed the question of what the typical learning experiences of junior primary children are, we found that there was a dearth of literature on the subject, although much information could be gleaned from experienced workers in the local situation. The overarching impression was that while impressive developments may be seen in the PEUP, the typical learning situation elswhere is rather bleak. The junior primary phase is the neglected child of education, and simply importing Eurocentric educational philosophy to explain the problems that exist will not serve as a catalyst for change.

A realistic vision of the possibilities for change will come when we have a comprehensive view of the children and their preferred modes of being. Their view of their role and task has to be inferred from everyday practices that we can observe. It is imperative that we understand what teachers and children think they are doing, and the differences between this and the "real" curriculum, the *sine qua non* of the proceses that underly skilled task performance. There is an urgent need for further basic research into modes of learning in naturalistic and formal settings. This research would then inform the processes of groundbreaking curriculum reform. In turn the reform should be backed by a genuine commitment to enhancing the physical conditions of learning as well as the development of usable learning materials in the junior primary phase.

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ADDENDUM ONE

CLASSROOM OBSERVATION STUDY QUESTIONS

A. Things to look for in the classroom.

1. What does the teacher think is satisfactory performance?
2. What is the teacher's implicit theory of language learning? (Specifically English, but also the practice of literacy.)
3. What does the teacher see as rewardable behaviour?
* How does the teacher reward behaviour?
4. What does the teacher see as punishable behaviour?
* How does the teacher punish behaviour?
5. How does the teacher give feedback to correct and incorrect answers? Does she reward accurate answers?
6. How do the children signal that they are paying attention?
*What kind of eye contect is made with the teacher?
* What kind of postural orientation is held in relation to the teacher?
7. Do the pupils make original contributions not solicited by the teacher?
8. What are the manifest differences betwen preschool and school children in terms of self-initiated behaviour? What seems to maintain this pattern? (Where school has preschool.)
9. What is the subject matter covered? How does this compare with what was intended by the materials?
10. Were there demonstrations, class experiments, discussions and so on? (cf. classroom notes)
11. How does the teacher cope with conflict in the classroom?
* What kind of conflict behaviour do the children display?
12. What is the wait time after a question? (No specific sampling done.)
13. How long does the teacher take to finish a task?
* mother tongue
* second language
* mathematics
14. What range of activities are covered in a day? (From written notes)
15. How are the children's desks physically arranged? (Draw)
16. What kinds of visuals are hung on the walls? How old do they appear to be?
17. Does she use aspects of the Rote-Rhythm method?
* pupil repetition
* class repetition
* completion of teacher's sentences
* how many times does she repeat what she says?
18. What % of time do children spend engaged in co-operative groupwork?
19. What % of time do children spend in parallel groupwork?
20. What use does the teacher make of textbooks?
21. What use does the teacher make of other source materials?

B. What does the teacher say?

1. Does she think she is getting appropriately rewarded for her work? Is she getting enough pay for her work?

2. What are her biggest rewards in her work? Which part of her work does she most enjoy?
3. Does she think that rote learning persists? (For higher classes)
4. How does she address her task of coverage? Does she feel that she is able to finish her syllabus? Why? What is the relationship between what she plans to teach and what she teaches?
5. How does she address her task of mastery? Does she feel that the children are able to learn those tasks that are expected of them?
6. How does she address her task of generating positive affect? How does she motivate the children?
7. How does she address her task of management? How does she set out to plan groups and then organise them in the classroom? Any problem areas?
8. What should the relationship be between the teachers and the principal? (In general, not specific.) In what ways can the principal help the teachers?
9. How does she perceive her relationship between herself and the parents?
10. How can the parents realistically support their children's learning? What kind of support is there from the parents of the children in her classroom? Visits, money, interest in the children's work?
11. What is the attitude towards mother tongue books? How many Tswana books are there in the school? What is the teacher's attitude towards reading to her pupils, or reading to her children?
12. How well does the PEUP way work? e.g.
* are children naturally curious - or will their boredom lead them astray?
* necessity for a nonthreatening environment?
* is play distinguished from work, or must children learn the difference?
* does the child wish to share what he learns from others? How well can the child help others, on his own initiative or if the teacher directs him to do so?
* how important are direct experiences with objects and ideas? How important are concrete aids to learning, for example, in maths?
* are errors a necessary part of the learning process or should they be avoided?
13. Motivations for becoming a teacher? Why did she become a teacher?
14. How does she perceive her status in the community? How does the job of teacher compare with others in the community?
15. Other comments?
16. Afterwards: what kinds of discrepancies are there between what the teacher says and what she does?

ADDENDUM TWO

Note: this addendum contains an array of authentic sample material. The key is provided simply to direct the reader to salient points. No general description is attempted.

KEY:

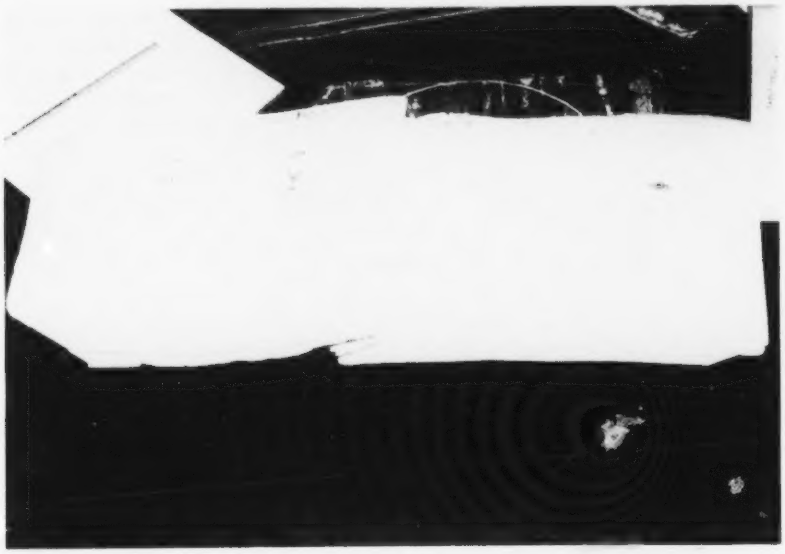
Page (i) :	Picture 1: Writing sentences after six months of instruction (PEUP). Picture 2: Early mathematics in English (PEUP).
Page (ii) :	Std 2 free writing of a letter in English (PEUP).
Page (iii):	Science work done with English terms in Std 2 (PEUP).
Page (iv) :	Structural exercises in Std 2 Afrikaans (PEUP).
Page (v) :	Extended Tswana text, showing paratactic structure (where the linkage is conveyed solely by juxtaposition or punctuation) in the body of the letter. A structural exercise on diminutives follows (PEUP).
Page (vi) :	The free writing in Question 2 is greatly improved where the task is structured by a having to give a description in Question 3 (PEUP).

The following three pages are sample notes from Std 2 "content subjects" in the nonracial school following the TED syllabus. Currently in the black education departments, this division only occurs in Std 3, although current syllabus revisions will bring these into line.

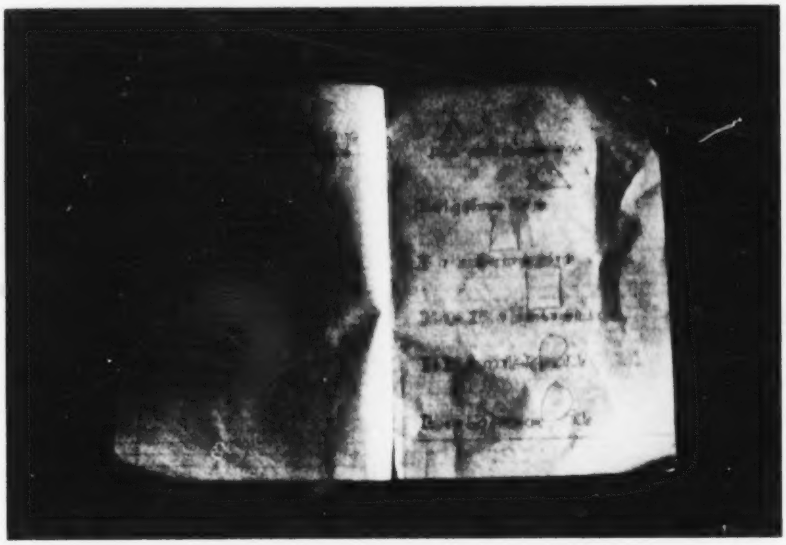
Page (vii):	Cyclostyled notes pasted into a science notebook (Std 2 science: convent school)
Page (viii):	Local history at the beginning of Std 2. Notice the discontinuity in the last two paragraphs (convent school).
Page (ix):	The practice of giving gap filling notes to maintain the child's interest prevails across the content subjects (convent school).
Page (x):	The children's books are liberally illustrated wherever possible (convent school). The health education syllabus is common across the departments.
Page (xi):	A sample from an English subject text widely used in the DET. Notice the emphasis on the knowledge about the language.
Page (xii):	A typical sample of health education text written for the DET. Notice the difference in language structures in this and the previous text (for example, especially "Ask your mother ..."). It is possible that such racially-specific text may give offence.
Page (xiii):	A sample of text used in the PEUP for Std 3 English. Notice,in contrast to (xi) that the text is more coherent and relates to the child personally.
Page (xiv-xv)	An "authentic" task for children in Std 2, with some structure provided to help with the answers (Bridge to English text, not yet widely used in any education department.)
Page (xvi-xvii)	A "proto-geography" lesson; when the questions are answered they provide coherent text. The answer to the last question

is transformed into a mother tongue structure: "are used" -> "helps us with" (Bridge to English text again, principally presented to show the essentially different nature of this material from conventional English second language material.)

Writing sentences after six months of Breakthrough instruction



Early mathmatics in English (PEUP)



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Writing sentences after six months of instruction

Early mathematics instruction in English (PEUP)

49/100

English

St camillus school
Hammanskraal
Po. Box 144
— 0400
7 october 1987

My friend

My go to the zoo to the zoo the many things to the zoo my sister and Brother they are not going to the zoo becols my father us not like. My sister is ~~Kno~~ Crying she is at go to the zoo.

My mother give me a skaftin in the skaftin they are many food. it is brood and egg chies fringie and meet mothe say cool drink and two quaver yos im like a quaver yos Im dind a das.

My father Im ~~to~~ not shoes school My fathe is not a Ramotse he is ~~ik~~ siskay.

My naam is
Excellent msuya

6

Potso II

At the Railway station

At the Railway station thay are many passenger and shops the gat is near a door of the train. ~~the~~ the train is raning fast.

1. lorapo lwa tlhogo.
2. Marapo a maoto.
3. Marapo a matsogo.
4. lorapo lwa mokotlo
5. spinalcot

Potso 7

1. O tshwanetse go neetsa ditaelo sentle tse o di boleldwang ke ngaka kgotsa mooki.
2. Fa o amogelwa kwa bookelong o newesua lepanta le tsogong le kwadilwe leina la me
3. Lepanta leo le thusiwa fa molwetsi a tswa kwa bookelo
4. Madi, ditshupanako le dilo tse dingwe tse di botlhokwa ke tshwanetse go di tlogela kwa gae gonne di katla tsa timela kwa bookelong

4

30/50

Tikologo 15 october 1987

Potso 1

Hlod 1. gas, liquid, Solid
2. liquit
3. gás

4

Potso 2.

1. Ke oxeggen, go ja, metsi, bophelo.
2. di dirisa mmidi

1

c, Daar is twelf maande is daar in 'n jaar,
d, Ek gaan vyf dae. ✓
e, Die naam van die twelfde is Desembe.

3

Vraag 9

a, Het is nommer twee. Sy is tweede ✓
b. Drie is dierde.
c, Vier is vierde. ✓
d, Vyf is vyfde ✓
e. Ses is sesde, ✓

4

Vraag 10

a, Die ~~kinders~~ lam begin blêr, toe hy ~~So~~ ~~m~~ sien miemie,
b, Die hond het geblaf, toe hy die dief ~~hoor~~ by die venster hoor, ✓
c, Die seun het gehuil, toe slaan hom hoof.
d, Ek moes te voet loop, toe ~~my~~. was my motor stukkend.
e, Die perd het gespring, toe die seun op sy rug spring. ✓

2.

PRINCIPAL
ST. CAMILLUS SCHOOL

St camillus school
P.O Box 323
Hammanskraal
0400
5 Seetebosigo 1987

Tsala

Ke boitumelo ke go kwalela lokwalo lo.

Fa ke ne ke le kwa gae ke ne ke thusa nkgono go kotula mmidi, re ne re ~~o~~ kotula ka selemo, fa o butswitse, re be re tsenya ka mo kgamelong, fa re feditse go kotula, re be re tswa mo tshimong, re tsenya ka mo pitseng re o apeya, fa o butswitse ke tsaya letswai ke le ke je, mmidi o jadiwa selemo fa pula e na, fa pula e sa ne mmidi ~~wa~~ s o nna o mesetlha mmidi o le popo. Fa o le popota re beya mmidi o fa pula e na thata o a kibila re o neya dikoko.

Leina la me
Portia Letsoko

9

Potso 3

Bogolo	Bonnye
a Kgomo	Kgongwana ✓
b Ntšwa	Ntswanyana ✓
c Koko	Kokwana ✓
d Tsela	Tselanyana
e ~~Po~~ Phalo	Phalwana ✓

4

Question 2

At the game parck is in the lio elephant, passengers tree, the man carir ~~cameta~~ camera, is in the car is ~~[illegible]~~ the White car and his blue car, an ride gate. in the game park the Animals are strong and It is wild anim is not farm animal. in ~~a~~ the game park. is not the cat ne,

the crocodily, Sebra hyppo, and Monkey. I'll go to the gamepark [illegible] your seps

8

Question 3

This is a picture of a bird the bird i flying ✓ It has ~~two~~ wings. on its body ~~the~~ there are many feather It has not got any ~~it~~ teath. It eats with its mouths. It is a big ✓ bird. It lives near our houses

7

Question 4

Mr Mmusi live in palapye in Botswana
his brother lives in pretoria in South Afric
he go in Desember ✓
hes ticket collecter ✓
They show at railwel
his get big train ✓
They go to the case

How can water be stored or conserved?

People, animals and plants must have water to live. As it doesnt rain every day, we have to collect rainwater. We say it is stored or conserved, so that it can be used later on.

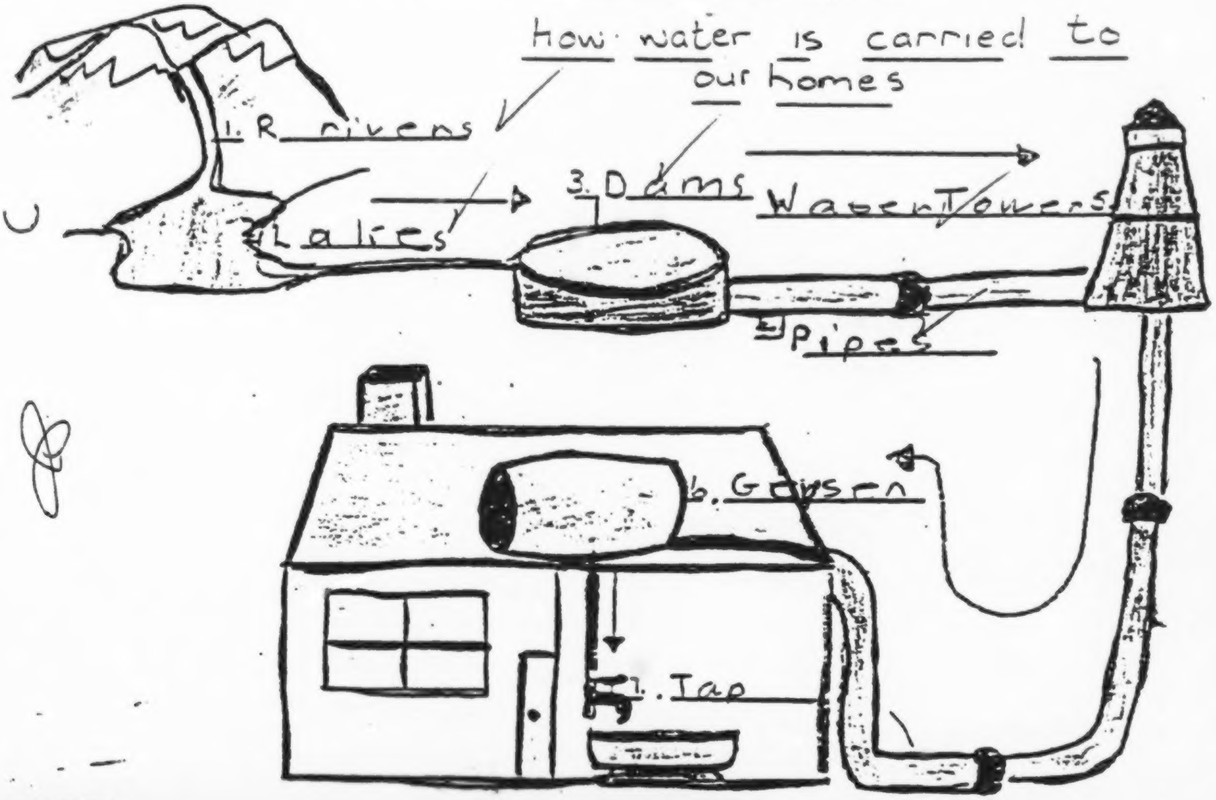
Water can be stored in

1. WaterTower, 2. Dam, 3 Storage Dam, 4 Irrigation Dams.-

Water is usually pumped from a storage dam in a river, into a covered storage dam called a resBrvoir, near a town or city. Reservoirs are built in high places such as a hill and pipes distribute the water to the houses, schools and buildings which are on a lower level.

What is the largest and most important storage dam in the Transvaal? Vaal dam

How water is carried to our homes



1988.02.15

HISTORY OF ROODEPOORT

When the first prospectors or gold diggers came to look for gold they called the land where gold was to be found 'the ridge of white waters' or .Witwatersrand.✓.

The diggers were given permission to dig for gold on THREE farms in the area. They were VOGELSTRUISFONTEIN, PAARDEKRAAL and ..Roodepoort..|..✓............

Gradually FOUR small townships developed on these farms. Their names were ROODEPOORT, MARAISBURG, ...Florida..✓.................... and HAMBERG.

In 1904 the four townships became one municipality known as the Roodepoort Maraisburg Municipality. The first Mayor was Mr..Ross...Skinner...✓.

A dreadful tornado struck Roodepoort in 1948. It only lasted for about 6 minutes but during that time about 700 houses were destroyed and ...four..✓..... people were killed.

Roodepoort became a City in 1977.

Goldman STREET

The house that Jameson was a prisinor.

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How can water be stored or conserved?

People, animals and plants must have Water to live. As it doesnt rain every day, we have to collect rainwater.. We say it is stored or conserved, so that it can be used later on

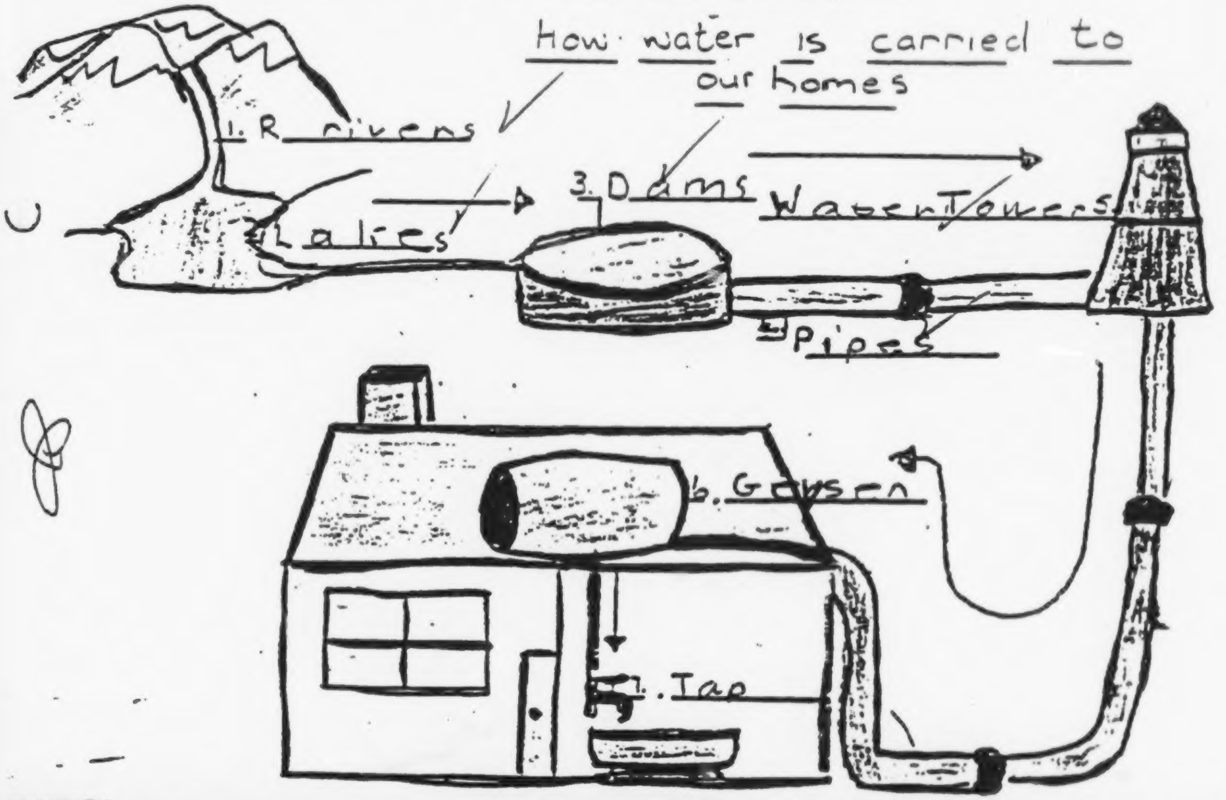
Water can be stored in

1. WaterTower, 2. Dam, 3 Storage Dam, 4 Irrigation Dams, -

Water is usually pumped from a storage dam in a river, into a covered storage dam called a reservoir, near a town or city. Reservoirs are built in high places such as a hill and pipes distribute the water to the houses, schools and buildings which are on a lower level

What is the largest and most important storage dam in the Transvaal? Vaal dam

How water is carried to our homes

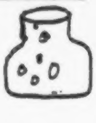


1988-07-06

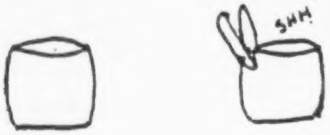
Poisoning =

1. Food can be poisonous by nature
eg some mushrooms, the leaves of the oleander ✓ plant, the flowers stems and seeds of the castor oil ✓ plant
2. Contaminated Food Germs can poison the food.

Danger Signals



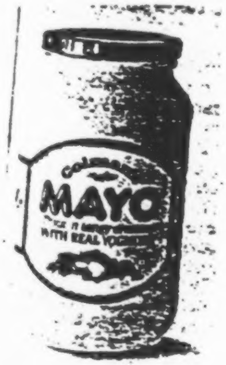
Bubbles of gas in canned or bottled food.



Bulging tins which deflate on opening

3. Poisons or Insecticides
Sprays or poisons can accidentally ✓ contaminate food. Always make sure that you wash all fruit and vegetables before eating or using them.

NEW
ILLOVO
Golden Syrup
350 g
Syrup


MAYO
WITH REAL YOGHURT

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WEEK 18 LESSON 1

1. Rewrite these sentences filling in the naming part.

(a) .... are riding along the road.
(b) .... have gone to live in a house in town.
(c) .... paints pictures at school.
(d) .... has bought a pair of new shoes.
(e) .... takes the suitcase with him.

2. Fill in the doing part in each sentence

(a) My mother and father ....
(b) The sheep ....
(c) One little pig ....
(d) Did John ....?
(e) How many children ....?

WEEK 18 LESSON 6

Write out this composition, filling in suitable words and phrases from the list given

Down the Drain

On Monday, last week, Petros brought a new ball to school. As soon as we saw it we ....

At lunch time he took his ball outside .... We had just started playing with it when someone kicked it ....

We looked down the drain and we could just see .... but we did not know how ....

Then Peter suggested that we use a rake to .... it out. We borrowed a rake from teacher and soon .... out of the drain.

List of words and phrases
to get it out
all wanted to play with it
the ball
hooked the ball
into the playground
down a drain
hook

WEEK 18 LESSON 7

Rewrite these sentences and fill in the correct words in the blank spaces.

e.g. She felt his hands. they were as cold as .... (ice).

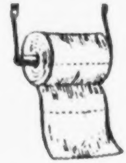
1. The sheets were as white as..................
2. He felt as sick as a ....
3. The little child was as good as ....
4. That chair is as old as the ....
5. The child would not come into the room. He was as timid as a ....
6. He did not eat his food and he got as thin as a ....
8. When they found the dog he was as dead as a..................
9. She said that she felt her cake was as heavy as ....
10. When she came into the room she looked as pretty as a ....

WEEK 19 LESSON 2

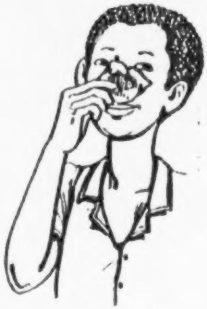
An adjective is a describing word. Adjectives are used to describe persons, places and things. They help to make your speaking and your compositions more interesting. Look at

Use *soap* and, if possible, *warm* water. After you have washed, rinse the soap off your skin, then dry yourself carefully with a towel. This will prevent your skin cracking. If your skin does get dry and begins to crack or split, rub in some skin cream or petroleum jelly.

You must take special care with some parts of your body and keep them very clean. You have learned about your hands, face and feet. Another part is round the anus after you have had a bowel movement. Although you wash all these parts, you also wipe them with soft paper. Use toilet paper or old newspaper after a bowel movement. If your nose is dirty, use toilet paper, tissues or a clean handkerchief.



Toilet paper



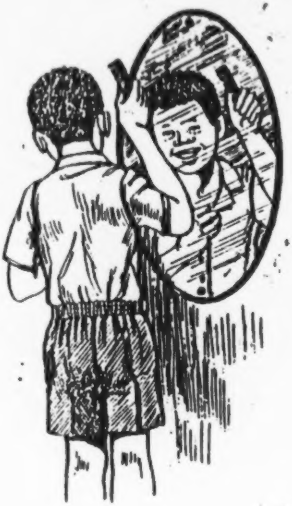
wiping the nose

a clean cloth handkerchief

3. Cleanliness and Care of the Hair

Wash your hair with soap (or shampoo) and water at least once a week. Rinse out the soap with fresh water, dry your hair with a rough towel or in the sunshine. If your hair gets dirty from oil and sweat, or any other cause, you can wash it more than once a week.

Brush and comb your hair every morning and every evening.



This boy is combing his hair

Keep your brush and comb clean.
Keep your hair short or in plaits.
Do not use anyone else's brush or comb.
Do not wear their hats or caps.
Ask your mother to look at your head for these three things:

1. To make sure that your hair is dark and strong and in tight healthy coils. If it is yellow coloured, breaks easily or straightens it probably means that you need to eat a little more protein every day
2. To make sure that your hair is growing from all parts of your head and that there are no sores on your head. (You will learn later about the diseases that might be seen on your head.)
3. To make sure that there are no living things called *lice* or their tiny eggs called *nits* stuck to your hair.

THE GIANT

Jane's teacher told her class a story about a giant. This giant was enormous and he ate people. The story frightened Jane. She did not like hearing about giants.

The next day Jane walked to school. Near Mr Mabuso's shop she saw a man. The man was taller than her father. He was bigger than Mr Mabuso. He was enormous.

Jane said to herself, "He must be a giant."

Jane was very frightened. She ran past the giant. Then she fell over and the books fell out of her bag. The giant turned round. He picked up Jane. Then he picked up the books. He asked her, "Did you hurt yourself?"

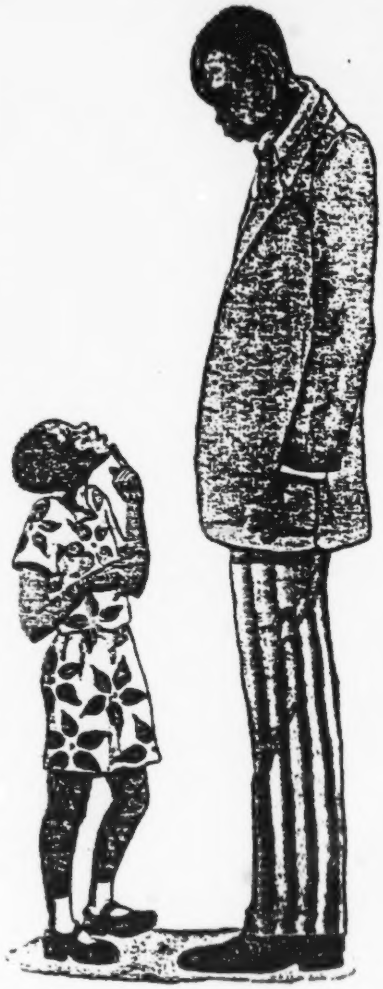
"No," said Jane. "I didn't hurt myself." Then she asked, "Please, are you a giant?"

The giant smiled and said, "I know that I'm enormous. People say that I'm as big as a giant."

"Do you eat people?" asked Jane.

The giant smiled again. "No," he said. "I don't eat people. I eat a lot of things but I don't eat people."

Then he gave Jane her bag of books and she went to school."



A That night Jane was talking to her mother.

MOTHER: What did you do today, Jane?
JANE: I saw a giant.

Here are some more questions that Mother asked. Say Jane's answers.

1 When did you see the giant?
2 Where was he?
3 What did he look like?
4 Did you speak to him?
5 What did you say?
6 What did he answer?
7 Do you think he was a giant, Jane?
8 Did you like him?
9 Why?

Task 23: Part 4

Mr Naran filled in this report for the insurance company.
Write the sentences by filling in words on the lines.

1. **Your name:** M. Naran. ____________________

2. **Street address:** ____________________

3. **When was your house burgled?:** My house ____________________

____

4. **How was the house entered?:** The house ____________________

through the front door.

5. **How was the door opened?:** The door ____________________

____________________ the key. The window ____________________

with a brick and the burglar put ____________________

____________________ and turned the key.

6. **What was stolen?:** ____________________

7. **Where were the stolen things kept?:** The stolen things ____________________

____

8. **Has your house been burgled before?:** No. My house ____________________

____

9. **Is your house kept locked when you are not there?:** Yes. ____________________

____

Promise Nkosi — Standard Two

02 November 1988

Bridge Plus Two

Task 23 — Part 4

Mr Naran talk with the Insurance Company

VUKANI PRIMARY SCHOOL
1435 WHITE CITY, JABAVU
03 NOV 1988
DEPARTMENT OF EDUCATION
AND TRAINING

1. M. Naran.
2. 691 Ria Street.
3 My house was burgled at 9 o'clock.
4. The house was entered through the front door.
5. The door was opened with the key. The window was broken with the brick and burglar put his hand through the window and turned the key.
6. My coat, radio, hat, and everthing that was in my suitcase.
7. ~~The stolen in my bedroom~~. They were kept in my bedroom.
8 No my house has not been burgled before.
9. Yes, my house is kept locked when I'm not there.

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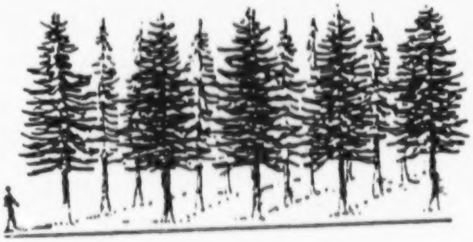
TASK 26 UNIT 19

Task 26: Part 1

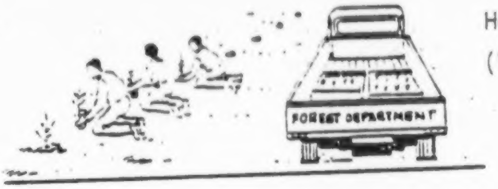
Look at the pictures and answer the questions.
Write the number of the picture next to your answers.

1.



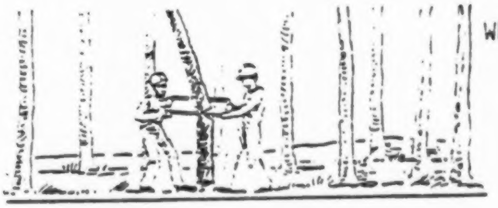
What is this a picture of?
What are the things in the picture?
Are the things many or few?
Are the things big or small?

2.



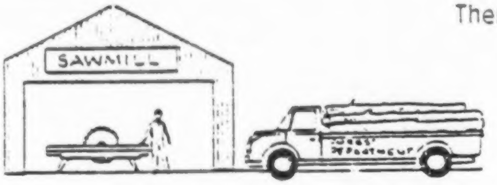
How do they get there?
(Where do they come from?)

3.



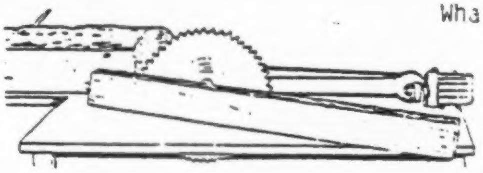
What happens when they get big?

4.



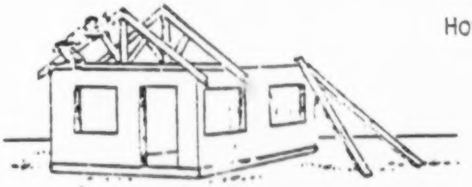
Then where do they go to?

5.



What happens there?

6.



How are they used?

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Themba Thelela   Std. Two

02 November 1988

Bridge Plus Two

Task 26   ~~[illegible]~~ Unit 10

Trees

1. This is a picture of a forest. There are trees in the picture. There are many trees. The trees are big. The trees are plantet by the men from the Forest Department. They are cut down. They go to the sawmill. They are cut into planks for building houses. The trees helps us with firewood and fruit.

VUKANI PRIMARY SCHOOL
1435 WHITE CITY, JABAVU
03 NOV 1988
DEPARTMENT OF EDUCATION AND TRAINING

How to make fire

Get some old newspaper. Roll the pieces of newspaper into balls
Collect firewood. Put the firewood on top of the paper
Put some coal on top of the firewood. The fire is lit by the matches
The big wind blows the fire out.
3/11/88 You will have to start again

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